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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HARVEY, DAVID E

ART UNIT PAPER NUMBER

2614

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
08/470,571

Applicant(s)
Harvey et al.

Examiner
David E. Harvey

Art Unit
2614



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on May 6, 2002

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 56-74, 76, 80-82, 84-87, 89-91, 93-114, 116-118, 120-127, 129, 140, 141, 162-176, 179, 181, and 182 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 56-74, 76, 80-82, 84-87, 89-91, 93-114, 116, 117-118, 120-127, 129, 140, 141, 162-176, 179, 181, and 182 (all) is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

6) ☐ Other: _____

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SECTION I: A MOST SIGNIFICANT ISSUE (CONTINUED)

(The pending amended claims are (at best) only entitled to the 9/11/87 filing date of the instant 1987 CIP specification. The following discussion has been provided to rebut applicant's arguments to the contrary submitted in the supplemental response filed 5/06/2002):

A) Given the way in which applicant elected to draft and file his instant 1987 CIP specification, it is impossible for one to determine with any degree of certainty as to what portion or portions, or indeed if any portion, of the subject matter from the 44 pages of applicant's past 1981 Parent specification was *actually* carried forward into the 557 pages of the instant 1987 CIP specification. The instant 1987 CIP specification unquestionably failed to incorporate the "1981 subject matter" of the past 1981 Parent specification via an "Incorporation by Reference." Likewise, the instant 1987 CIP specification unquestionably failed to incorporate the "1981 subject matter" of the past 1981 Parent specification by literally copying the past 1981 specification into the instant 1987 specification. In fact, based testimony made before the ITC, no conscious effort to carry the "1981 subject matter" forward into the instant 1987 CIP specification ever appears to have been made; i.e. being that applicant's counsel appears to have testified that he had to go back, e.g. in hindsight, to review the instant 1987 CIP disclosure to try to determine for himself whether the 1981 subject matter had been carried forward into the instant 1987 CIP specification. After completing this review, it was the counsel's stated *belief* that the 1981 subject matter of the 1981 parent somehow found its way into the instant 1987 CIP specification. However, applicant's counsel admitted that if the 1981 subject matter had indeed been carried forward, then its wording had been changed and this re-worded subject matter had been scattered throughout more than 500 plus pages of subsequently added new 1987 CIP text/teachings/"subject matter".

"To the extent -- and I'm unaware of any significant differences between the '490 patent [*the 44 pages of applicant's past 1981 Parent specification*] and the '277 patent [*the 557 pages of applicant's instant 1987 CIP specification*]. I haven't seen one, and I don't remember it. Certainly, I made an effort early on to determine whether or not the disclosures of the '490 patent made their way into the '277 and although they're spread around and sometimes stated a little bit differently, for all relevant purposes of this hearing, the '490 patent is expanded by the '277. Its certainly not inconsistent."

[Applicant counsel testimony before the ITC (1997 ITC LEXIS 307, *252)]

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“There is at least one significant difference in the specifications of the ‘490 [*the 44 pages of the past 1981 Parent specification*] and ‘277 [*the 557 pages of the present 1987 CIP specification*] patents, viz. the fact that the ‘277 specification is more than ten times the length of the ‘490 specification. More over, assuming no inconsistencies between the two specifications, it is indisputable that the ‘277 specification contains a significant amount of material that was added to the disclosure of the ‘490 specification in 1987 (i.e. over 500 pages of text).”

[Administrative Law Judge Luckern's response to the applicant counsel testimony (1997 ITC LEXIS 307, *252)]

Administrative Law Judge Luckern also noted that applicant's counsel admitted during closing arguments that:

“the disclosure in the 24 columns of the ‘490 patent [*the 44 pages of the past 1981 parent specification*], if indeed it is at all carried forward, is interspersed among some 328 columns of the ‘277 patent [*the 557 pages of the instant 1987 CIP specification*]”. (emphasis added)

1997 ITC LEXIS 307, *252

After reading and comparing the 1987 and the 1981 specifications for himself, the current examiner believes that it is simply impossible for one to determine with any degree of certainty as to what portion or portions, or indeed if any portion, of the past 1981 Parent specification's 1981 subject matter was actually carried forward into the instant 1987 CIP specification. For this reason alone, the current examiner does not believe that applicant's currently pending amended claims, e.g. those which must necessarily derive their required section 112-1 support from the instant 1987 CIP specification, are entitled to the earlier filing date of the past 1981 Parent specification [i.e. until such time that applicant is able to show with a relative degree of certainty that the limitations of each pending amended claim, e.g. for which section 120 priority is alleged, are supported “solely” by 1981 subject matter that was in fact carried forward into the specification of the instant 1987 CIP specification (a daunting/impossible task given the state of affairs that have been create by applicant's own actions)].

“However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications” (emphasis added)

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

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“Any claim in a continuation-in-part application that is directed *solely* to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.” (emphasis added)

Kirschner, 305 F.2d 897 (C.C.PA1962)

In an attempt to free himself of this daunting/impossible task, applicant adopts the erroneous position that his pending amended claims, all of which hail from the instant 1987 CIP specification, are entitled to the 1981 filing date of the past 1981 Parent specification even if the 1987 subject matter that is currently being recited does not represent “common subject matter” with respect to the 1981 subject matter of the past 1981 Parent specification. According to applicant’s way of thinking, the only thing that applicant needs to do in order to obtain the earlier 1981 filing date for his pending amended claims is to show that each of his pending amended claims can be given different 1987 and 1981 claim interpretations which allows each claim to be respectively supported, in parallel, by “different subject matter” from the two specification.

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.”
(emphasis added)

[Page 141 of applicant’s response filed on 1/28/2002 in application S.N. 08/470,571]

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“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’”

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant’s position seems to be wrong.

“However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications” (emphasis added)

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]]

“Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.” (emphasis added)

Kirschner, 305 F.2d 897 (C.C.PA1962)

B) Given the above, it is the examiner position that the “1987 inventions” that are currently described in the instant 1987 CIP specification and the “1981 inventions” that were previously described in the past 1981 Parent specification do not represent “common subject matter” and are, for all intents and purposes, different inventions. It is therefor the examiner’s position that the currently pending claims, which necessarily derive their required section 112-1 support from the “1987 inventions”, are not entitled to the earlier

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1981 filing date of the *different* “1981 inventions”; i.e. being that the subject matter of the past 1981 Parent specification, e.g. the *different* “1981 inventions”, was not carried forward into the 1987 CIP specification as is required under section 120.

C) While applicant disagrees with the examiner’s position that the “1987 inventions” are different from the “1981 inventions”, applicant seems willing to acknowledge that the “1987 inventions” are in at least in some ways *enhanced and improved* versions of the 1981 inventions.

“In fact, both [the 1981 and 1987] specifications describe the inventions disclosed in the 1981 specification, although the 1987 specification contains many enhancements and improvements.”

[see the last two lines on page 9 of applicant’s supplemental response filed 5/6/02 in SN 08/470,571]

Because only the “enhanced and improved” 1987 versions of the 1981 inventions actually exist within the instant 1987 CIP specification, when citing section 112-1 support for the currently pending claims from the instant 1987 CIP disclosure, applicant’s citations inevitably comprise “enhanced and improved” subject matter ¹. Applicant, however, takes the position that this fact is irrelevant to the issue of priority under section 120.

“The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid ‘common subject matter’ support.” ²

[lines 5-8 on page 10 of the supplemental response]

¹ The examiner notes that this fact is blatantly obvious whenever applicant attempts to specifically show alleged dual section 112-1 support for each claim limitation of any given pending amended claim [e.g. as is exemplified via Appendix A of the amendment filed 6/7/2000 in 08/470,571]

² Throughout the prosecution history, applicant has maintained that “common subject matter” is not a real/actual requirement of section 120 but is instead a requirement that the examiner himself has created and imposed on the current applicant. It is not clear whether this quote reflects a departure from applicant’s past positions (?)

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The examiner disagrees with applicant's "way of thinking" for at least the following reason:

1) Suppose that the currently pending claims had indeed been introduced into an application that comprised the past 1981 Parent specification; e.g. instead of the instant application having the instant 1987 CIP specification as is currently the case. In this situation, a potential infringer wishing to make and use one of the 1987 "enhanced and improved" versions of applicant's 1981 inventions would have to have made an "educated determination" as to whether or not his making and using the "enhanced and improved" version of the 1981 invention infringed the claims in question (e.g. being that the 1981 specification did not describe such enhanced/improved inventions). In such a situation there is at least potential *wiggle room* for the potential infringer to have concluded/argued that such an "enhanced and improved" system would not infringe the claim in question; i.e. the issue is purely a matter of the potential infringer's judgement.

2) Now introduce these same claims into an application having the instant 1987 CIP specification. Now there is no question that the potential infringer would in fact be infringing the claim if he makes and uses the "enhanced and improved" version of the 1981 inventions because the required section 112-1 support for these claims, e.g. as acknowledged by applicant himself during the prosecution of the CIP application, comes from portions of the 1987 specification that explicitly describe the "enhancements and improvements" in question.

"The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid 'common subject matter' support."³

[lines 5-8 on page 10 of the supplemental response]

Thus, the wiggle room that exists when a given claim derives its section 112-1 support from the 1981 Patent specification evaporates when section 112-1 support for the same claim is derived from the instant 1987 CIP specification; i.e. the issue

³ Throughout the prosecution history, applicant has maintained that "common subject matter" is not an actual requirement of section 120 but is instead an invalid requirement created and imposed on applicant by the current examiner. It is not clear whether or not this passage reflects a changed in applicant past position (?)

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is no longer purely a matter of judgment as had been the case with respect to the past 1981 Parent specification. From this, it is clear that applicant's pending amended claims take on a different scope/meaning depending on which of the 1987 and 1981 specifications you use as the basis for deriving section 112-1 support. Therefor, "different" 1981 and 1987 inventions are effectively being claimed by each of applicant's pending claims given the "different" 1981 and 1987 subject matter from the "different" 1981 and 1987 specifications which must serve to provide "different" 1981 and 1987 section 112-1 support for each claim.

3) Thus, it becomes clear why applicant's currently pending claims which depend on applicant's 1987 CIP specification are not entitled to the earlier filing date of the past 1981 Parent application. Specifically, the instant 1987 disclosure imposes very real modifications onto the meaning/scope of the currently pending amended claims in a way that was not supported by the past 1981 Parent specification as originally filed.⁴ Allowing applicant to improperly use section 120 in this way, gives the current applicant a way to retroactively modify the scope and meaning of pending claims via the specification of the subsequently filed CIP 1987 so as to eliminate "wiggle room" that was available to a potential infringers as of the 1981 filing date of the parent application, and yet improperly obtain a 1981 filing date for claims which have been modified to have such 1987 scopes/meanings.

4) So what in the law prevents applicant from improperly using section 120 in this fashion? As understood by the examiner, it is the fact that section 120 only entitles a claim in a later filed continuing application to the earlier filing date of a Parent if there is a "continuity of common subject matter" between the respective applications whereby this common subject matter defines precisely the "same invention":

"However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications" [emphasis added]; [In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (18)]**

"Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in

⁴ This is because the "unmodified and unenhanced" 1981 subject matter described in the past 1981 Parent disclosure simply does not exist within the instant 1987 CIP disclosure; e.g. "common subject matter" does not exist between specification.

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the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.”

(emphasis added)

Kirschner, 305 F.2d 897 (C.C.PA1962)

D) In the first four lines on page 15 of the supplemental response filed 5/6/2002 in 08/470,571, applicant states:

“applicants further questioned [the examiner as to] why it would be necessary to incorporate the parent disclosure, by reference or in full-text format, if the subject matter of the parent application *is properly disclosed* in the CIP application in an integrated manner with the enhancements and improvements of the CIP application.” (emphasis added)

That depends on what applicant means by “*properly disclosed*.” To applicant, “*properly disclosed*” does not require that the claims be supported by “common subject matter” found in both applications.

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.”

(emphasis added)

[Page 141 of applicant’s response filed on 1/28/2002 in application S.N. 08/470,571]

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In contrast, the examiner maintains that "*properly disclosed*" requires continuity of "common subject matter" between applications for that which is claimed. Being such, if there is any way by which current applicant can use the section 112-1 support that is actually available in the instant 1987 CIP disclosure to "properly" show that the currently pending claims are in fact directed "solely" to 1981 subject matter previously described in the past 1981 Parent specification, i.e. "common subject matter", then section 120 priority would be a "*given*". To date, applicant has been unable to provide such a showing.⁵ Here, it is important to note that a direct path to such a "*proper*" showing would have been available to the current applicant had the *unenhanced/unimproved* subject matter from the past 1981 specification *actually* been incorporated into the instant specification in a distinct and discernible fashion. This is, in essence, the answer to the question that has been asked by applicant.

"applicants further questioned why it would be necessary to incorporate the parent disclosure, by reference or in full-text format"
[the first four lines on page 15 of the supplemental response filed 5/6/2002 in 08/470,571]

Specifically, any applicant wishing to draft a claim in a later filed CIP application that is going to be directed *solely* to "subject matter" found in an earlier filed Parent application, e.g. thereby allowing the drafted claim to obtain the benefit of section 120 priority, would be wise to incorporate said "subject matter" from the parent application into the CIP specification in a clear and undisputable fashion. Incorporating the Parent specification by reference, or by literally carrying it forward in a substantially identical "full-text format", are methods that are commonly used by applicant's for this purpose. And for obvious reasons, the need to "incorporate" the parent's subject matter in a clear and undisputable fashion is especially true/"necessary" if the "subject matter" of the past parent disclosure is going to be extensively "re-worded", "enhanced", "improved" and "scattered" throughout vast quantities of new subject matter during its alleged migration to the specification of a subsequently filed CIP specification.

⁵ This is not a situation in which the "wording" that was used to described "common subject matter" has simply been changed between applications as applicant would now try to have one believe [note lines 7-11 on page 15 of the supplemental response filed in 08/470,571 on 5/6/02]. Instead, it is a situation in which "1981 inventions" from the 1981 specification were left behind at the time of filing the instant 1987 CIP specification in favor of the enhanced/improved/modified "1987 inventions" which are actually described within the instant 1987 CIP disclosure; a fact that is clearly self-evident whenever applicant attempts to specifically demonstrate "dual" 1987 and 1981 section 112-1 for that which is claimed [e.g. as is exemplified via Appendix A of the amendment filed 6/7/2000 in 08/470,571].

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E) Applicant takes the position that he is allowed to use the “new subject matter” that is contained only within the instant 1987 CIP specification to fulfil the section 112-1 requirement for his pending claims and yet still obtain the earlier 1981 filing date of the 1981 Parent specification for these claims by alleging that some underlying principle or teaching from the 1981 specification is buried/embedded/hidden somewhere within the cited “new subject matter”.

“The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid ‘common subject matter’ support.”⁶

[lines 5-8 on page 10 of the supplemental response]

Here, applicant seems to suggest that it is “solely” the alleged “underlying features” from the 1981 disclosure that are being claimed by the pending claim’s recited limitations, even though the passages from the instant 1987 specification that must be cited by applicant, for the expressed purpose of providing the required section 112-1 support for the claim’s limitations, necessarily comprise new/added 1987 subject matter that was introduced via the filing of the 1987 CIP specification. Apparently, it is applicant’s position that the added/new 1987 subject matter contained within applicant’s own citations of alleged section 112-1 support should be weeded out, discarded and/or ignored in order to allow the alleged underlying principles, ones that were allegedly carried forward from the past 1981 parent specification, to emerge therefrom (thereby allowing applicant’s subsequently filed CIP claims to obtain the earlier 1981 filing date of the parent application). The examiner thinks not!

⁶ The examiner notes that the fact applicant is relying on the new “enhanced/improved” subject from his 1987 CIP to provide section 112-1 support for the claim is self-evident whenever applicant attempts to specifically show the alleged “dual” section 112-1 support for a given claim’s limitations via the different specifications [e.g. as is exemplified via Appendix A of the amendment filed 6/7/2000 in 08/470,571]

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F) In lines 16-19 on page 15 of the supplemental amendment filed 5/6/2002 in 08/470,571, applicant boldly alleges:

“that incorporating the parent [specification], either by reference or in full-text format, into a CIP application that disclosed the subject matter of the parent in an integrated fashion does nothing more than add unnecessary duplicative content to the CIP application.”

The examiner notes the following:

- 1) If applicant is suggesting that this is the situation that currently exists between his instant 1987 CIP specification and his past 1981 Parent specification, then the examiner suggests that applicant make the attempt to formally incorporate his past 1981 parent specification into his current 1987 CIP specification either by reference or in said full-text format in order to resolve the priority issue once and for all. Applicant is, however, put on notice that any attempt to amend the instant 1987 CIP specification in such a fashion will be vigorously objected to as introducing “NEW MATTER”; and
- 2) Given the present situation, having added a single a sentence to the 557 pages of text that comprise the 1987 CIP specification, stating that the 44 page specification of the past 1981 Parent application had been “Incorporated by Reference”, hardly seems to fall within the realm of “add[ing] unnecessary duplicative content to the CIP application.”

G) In lines 19-22 on page 15 of the supplemental amendment filed 5/6/2002 in 08/470,571, applicant alleges:

“applicant’s have established in their prior submissions that all of the fundamental teachings of the 1981 disclosure were carried forward to the CIP application, albeit in an integrated fashion with many enhancements and improvements of the CIP application.”

The current examiner knows of no prior submission or submissions made by applicant which has “established”, as fact, that *that* which is now claimed by applicant’s currently pending amended claims is directed “solely” to “fundamental teachings” from applicant’s past 1981 Parent disclosure which have been carried forward to the instant 1987 CIP specification. In fact, all attempts made by applicant to specifically identify the required section 112-1 support for the limitations of the currently pending amended claims have

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instead “established”, as fact, that *that* which is now claimed actually comprises ones the “many enhancements and improvements of the CIP application” that are not entitled to “priority” under section 120.

H) In lines 9-12 on page 10 of the supplemental response filed 5/06/2002 in SN 08/470,571, applicant states:

“The mere presence of the additional details and enhancement in the 1987 specification does not deprive applicant’s of the 1981 priority date unless the claim limitation or feature is only supported by such additional details and enhancements which are not found in the 1981 specification.”

See *Kennecot*, 835 F.2d at 1422.” (Emphasis added)

[Lines 9-12 on page 10 of applicant’s supplemental response filed 5/6/02]

It is not clear how the cited case law, e.g. *Kennecot*, 835 F.2d at 1422, supports applicant’s apparent position that a claim in a continuation-in-part application is entitled to the earlier filing date of a past parent application if only part of its required section 112-1 support comes from “new CIP subject matter” that was introduced via the filing of a CIP specification. This would suggest a situation in which the examiner could/should reject that portion of a pending claim’s scope which is allegedly supported by the “New Matter” of a CIP via valid intervening “prior art” while, at the same time, allowing that portion of the same pending claim’s “scope” that is directed “solely” to the subject matter of the Parent application to issue as a patent. Such a position does not make sense.

To the contrary, by claiming the benefit of section 120 priority for a given claim filed in a subsequently filed CIP application, an applicant is essentially “*pledging*” (e.g. putting everyone on notice) that the claim is directed “solely” to the subject matter that is found within the specification of the Parent application, and not to any of the “new subject matter” that has been introduced via the subsequently filed CIP.⁷

However, such a “pledge” must be supported by the CIP specification from which the claim depends. Namely, if a claim in a CIP application is going to be directed “solely” to

⁷ That is, to determine the scope/meaning of the claim, one looks only to the subject matter of the parent application, which has been carried forward into the CIP application (i.e. *common subject matter*), to which the claim is necessarily “directed”.

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the subject matter of a past parent application, then said subject matter of the past parent application must exist within said CIP specification being that the required section 112-1 support for the claim must necessarily come from the instant CIP disclosure. Thus, the subject matter of the parent that one wishes to claim must be carried forward from the parent specification into the CIP specification; hence the requirement of "common subject matter". However, given the current state of applicant's instant 1987 CIP specification, e.g. one in which past 1981 subject matter has been (at best) inseparably blended/modified with subsequently added new 1987 subject matter, it impossible for one to determine what of the past 1981 subject matter, if any, has been carried forward into the instant CIP disclosure. Being such, one cannot reasonably "*pledge*"/assume that a currently pending claim are (or even could be) directed solely to the past 1981 subject matter.

"The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid 'common subject matter' support."

[lines 5-8 on page 10 of the supplemental response]

Again, why should a pending claim having limitations that are directed to even a smudge of new 1987 subject matter be entitled to the earlier 1981 filing date of the Parent specification which did not disclose that smudge of new 1987 subject matter?

"Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application."

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]]

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I) In lines 3-7 on page 11 of the supplemental response filed 5/06/2002 in SN 08/470,571, applicant states:

“the starting point for determining whether an applicant is entitled to priority under section 120 is *what is being claimed*. Without identifying precisely what is being claimed, it is impossible to seriously undertake an analysis of whether sufficient support exists in both applications thus entitling applicants to a 1981 priority date”.⁸

The examiner is a bit surprised that applicant raises this issue after all of the section 112-1 requests which have been made by the Office throughout the present prosecution in hopes of getting applicant's clarification as to *precisely what it is* that applicant claims. In fact, the Office continues to struggle in its efforts to make such determinations for the 10,000 or so pending amended claims. In the past, when applicant has been asked to identify “*precisely what is being claimed*”, applicant has declined⁹ to provide such showings instead opting to take the positions:

1) That it is the examiner's job, not applicant's, to read and understand the 557 pages of applicant's current 1987 CIP specification in order to determine “precisely what it is being claimed” via applicant's 10,000 or so pending claims; and

2) That at least some of the limitations of applicant's 10,000 or so pending claims are actually directed to subject matter that is not described within in the instant 1987 CIP specification.

“the [examiner's] assumption that ‘all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure’ is mistaken and wholly unsupported.”¹⁰

[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

⁸ The examiner agrees with applicant's position noting that, without being able to identify precisely what it is that is being claimed, it is impossible to seriously undertake many other examining related activities too .

⁹ A notable exception being the most helpful claim charts of alleged “dual” section 112 support which applicant has, only on a few occasions, been willing to kindly provide [e.g. APPENDIX A in the amendment filed 6/7/2000 in 08/470,571].

¹⁰ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant 1987 specification. This is not to say that the resulting scope of the pending claim is limited only to that of the 1987 specification to which it must necessarily be directed.

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Hence applicant does not wish to cite, or indeed is unable to cite, section 112-1 support from the instant CIP disclosure for these limitations [e.g. often times out of an expressed fear that a court, at some later date, might actually hold the scope/meaning of these limitations as being directed to subject matter that was actually disclosed within the instant 1987 CIP specification].

In regard to the section 112-1 issue that has now been raised by applicant, the following positions continue to be taken by the present examiner:

- 1) It has always been a desire of the Office to determine “precisely what it is” that applicant now claims. Being that it still remains so unclear as to “precisely what it is” that applicant now claims, clarification on the part of applicant is once again formally requested for the 10,000 or so pending claims. For the record, the current examiner has found applicant’s claim charts of alleged “dual” section 112-1 support to be the most helpful form of aid that applicant has provided to date because it at least attempts to match each claimed limitation to the specific teachings in the specification(s) that they are allegedly directed.¹¹
- 2) The examiner continues to adopt the positions expressed by Judge Luckern at the ITC:
 - a) **“that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] is difficult to understand, as it is dealing with many possible systems”;**
 - b) **“that despite complainant’s [i.e. the current applicant’s] attempts to point to the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] as illustrative of some claim elements, said specification has not been helpful in connecting individual claim language to distinct statements in the specification of the ‘277 patent that is supposed to provide an explanation of the claimed systems in issue”;**
 - c) **“that complainant’s [i.e. the current applicant’s] assertions in many instances of where support in the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] can be found for claimed**

¹¹ The process of showing a limitation-to-disclosure match for each limitation of each claim should be an easy task for applicant, if not a trivial one, being that the currently pending claims must be “*clearly anticipated*” by the teachings of applicant’s instant disclosure.

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elements 'reads like the directions to a treasure hunt. There's a piece here, there's a piece there, it's in there somewhere.'"; and

d) " that the specification of the '277 patent [the 557 pages of the instant 1987 specification] and the claims in issue 'are like ships passing in the night in the same ocean, but not necessarily sailing in the same direction.'"

[SEE: 1997 ITC Lexis 307, *258 (part I of II)]

The examiner again requests applicant's help in determining "precisely what it is" that applicant now claims.

J) When one actually attempts to compare the "1987 inventions" that are described in the instant 1987 CIP specification with the past "1981 inventions" previously described in prior 1981 Parent specification, one finds significant differences and "inconsistencies" between the 1987 and 1981 inventions at every level of the respective written descriptions:

- 1) One finds that the instant 1987 specification sets forth circuit configurations for the current 1987 inventions which differ from the circuit configurations of the past "1981 inventions" previously described in the prior 1981 specification;
- 2) One finds that the instant 1987 specification sets forth more advanced signaling structures and advanced processing thereof than was set forth for the past "1981 inventions" previously described in the prior 1981 specification;
- 3) One finds that while the instant 1987 specification provides circuit diagrams which include a significant number of "blocks" having labeling and numbering identical to respective "blocks" found within figures the 1981 specification, the instant 1987 specification nonetheless associates new/expanded/different functions and operations to the 1987 blocks as compared to those which were associated with the respective blocks of the past 1981 specification; and
- 4) Even at the most basic level, one finds that the definitions coined for terminology that is used throughout the instant 1987 disclosure in order to describe the "1987 inventions" is significantly different/inconsistent in both scope and meaning of definitions that are coined for this same terminology in the prior 1981 specification [i.e. meaning that similarly worded teachings found within the

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respective 1987 and 1981 specifications can (and often do) have different scopes/meanings too].

K) In the last four lines on page 9 of the supplemental response, applicant takes the position that:

“[The examiner has] mistakenly assumed that the 1981 and 1987 specifications describe different and inconsistent inventions. In fact, both specifications describe the inventions disclosed in the 1981 specification, although the 1987 specification contains many enhancements and improvements.”

The examiner has “assumed” nothing of the kind. To the contrary, the examiner has made a significant effort to try to compare the disclosed “1987 inventions” with the disclosed “1981 inventions” in order to specifically identify the differences and the inconsistencies that exist between them. In response to this effort, applicant has simply alleged that it is wrong and improper for the examiner to make such comparisons:

“In fact, applicant’s have found no cases addressing compliance with section 120 which suggests that the two disclosures identified to support a claim [e.g. from the 1981 and 1987] should or need be compared for similarity in any manner. Instead, the case law discussed above established that such comparison is unnecessary and indeed improper.”

[lines 8-11 on page 4 of the supplemental response]

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.”
(emphasis added)

[See page 141 of the response filed on 1/28/2002 in application S.N. 08/470,571]

Yet in almost the same breath, applicant makes unsubstantiated allegations that his current 1987 CIP specification and his past 1981 specification do in fact: 1) describe the “same

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invention”; 2) contain “common subject matter”; 3) have descriptions which are consistent with each other; etc,...

How in the world does applicant expect the examiner to refute or rebut applicant’s unsubstantiated allegations if the examiner is not allowed to compare the currently claimed 1987 subject matter from the instant 1987 specification with the 1981 subject matter from the past 1981 specification in order to evidence the fact that the respective disclosures: 1) describe “different invention”; 2) lack descriptions of “common subject matter”; 3) have descriptions that are “inconsistent” with each other; etc,... (?)

L) Applicant takes the position that his pending amended claims, e.g. claims which must derive their required section 112-1 support from the instant 1987 CIP specification, are entitled to the 1981 filing date of the 1981 specification provided that one cannot identify “inconsistencies” between the 1981 subject matter and the 1987 subject matter that are being claimed. This position is clearly rooted in applicant’s belief that section 120 does not require “common subject matter” between specifications.

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.” (emphasis added)

[See page 141 of the response filed on 1/28/2002 in application S.N. 08/470,571]

The examiner does not share in this belief. Applicant’s pending claims are not entitled to 1981 filing date of the past 1981 Parent specification because the 1987 “subject matter” that is currently being claimed via the instant pending amended claims is not the same as the “subject matter” that was previously described in applicant’s past 1981 Parent specification; i.e. the “subject matter” now being claimed does not represent “common subject matter” and does not constitute the “same invention” with respect to the subject matter that was actually described in applicant’s past 1981 parent specification. Contrary to applicant, the examiner believes that “common subject matter” between applications is a very real requirement of section 120.

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M) 35 USC 120 (reproduced):

35 USC 120: Benefit of earlier filing date in the United States.

An application for a patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or terminations of proceedings on the first application or an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain specific reference to the earlier filed application.

In the last 12 lines on page 3, applicant cites only a select portion of a passage found in *In re Kirschner*, 305 F.2d 897 (C.C.PA1962) as the “authority” for setting forth the requirements of section 120. The examiner notes that the “complete” passage reads:

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and *be* the same invention as that disclosed in the later application. It does not require that the invention be described in the same way, or comply with section 112 in the same way, in both applications. And to determine what is the invention under consideration, one must be governed by the claims of the later application, because it is there one must look to determine what invention the “application for patent” referred to in the opening words of section 120 is for” (emphasis added)

Thus, for a currently pending claim to be entitled to the earlier filing date of a parent application under section 120, applicant’s own cited “authority” identifies two distinct requirements of section 120:

- 1) that “the invention” being claimed in the later filed CIP application must have been disclosed in the earlier filed Parent application in such manner so as to comply with the first paragraph of section 112;

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AND.....

2) that said “invention”, as disclosed in the parent application in a manner that complies with the first paragraph of section 112, **be the “same invention” as that which is disclosed in the later application.**

In *In re Kirschner*, all of the involved parties had accepted the fact that “the invention” being claimed by each of the appealed claims was a chemical compound, and all involved parties had accepted the fact that this chemical compound had indeed been disclosed in the disclosure of the CIP and the in the disclosure of the Parent application for which section 120 priority was being sought. Thus, as emphasized by the court in this decision, no party had ever questioned the fact that the “same invention”, e.g. the same disclosed compound, was being claimed with respect to both of the two disclosures (i.e. the second requirement cited above). Instead, the dispute over whether the appealed claims were entitled to section 120 priority pertained to the fact that different “utilities” for this “same claimed compound” had been disclosed in both the CIP and Parent disclosures. The court clearly reasoned that the “same invention” of the appealed claims was entitled to the earlier filing date of the parent application despite the differences in the respective “*disclosed utilities*”¹² for the *compound* being claimed.

In the present prosecution, the current fact pattern is essentially opposite to that which was addressed in *In re Kirschner*. Specifically, in the current situation, different subject matter being claimed is being claimed with respect to the two specifications whereas, in some cited examples, it is the disclosed utility for the respectively disclosed/claimed subject matter that appears to be the same/similar (e.g. the “Wall Street Week” embodiment). Being such, it seems improper for applicant to suggest that the factual scenario in *In re Kirschner* is in any way similar to that found in the present prosecution [note lines 20-21 on page 3 of said supplemental response].

N) One of the “enhancements and improvements” that was effected via the subsequent filing of instant 1987 CIP specification was a change made to the definition of the word

¹² The court noted:

1) that the pending claims were directed only to a “compound” that was adequately disclosed in both applications and did not recite a specific one of the different “*disclosed utilities*” that had been disclosed; and

2) that “compounds” have innate properties which inherently define all of their “utilities” and thus any “*disclosed utility*” in a given specification for a “compound”, represents nothing more than a disclosed example of that compound’s *inherent* “utilities”.

The present applicant’s pending claims are not directed to a “compound” having such innate properties.

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“programming.” Whereas the past 1981 Parent specification defined the terminology as referring to Television and Radio transmissions, the instant 1987 specification “improved and enhanced” the 1981 definition of “programming” to explicitly cover “all forms of electronic transmission” now explicitly including “computer programming”, “broadcast print”, etc,... (e.g. additions to the radio/TV transmission of the past 1981 definition).

“everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform”;

[“programming” as defined in the past 1981 Parent specification]

“everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, computer programming, as well as combined medium programming”.

[“programming” as defined in the instant 1987 CIP specification]

Thus, whereas a potential infringer might have reasonably argued that any claim which derives its required section 112-1 support from the past 1981 specification cannot be fairly read on subject matter outside the Television and Radio transmission arts given the 1981 definition of “programming” (e.g. that these claims cannot be fairly read on computer software/programming transmissions), the wiggle room for such arguments has been effectively eliminated when the identically worded claims derive their required section 112-1 support from the instant 1987 CIP specification instead; i.e. being that the 1987 specification replaces the 1981 definition of “programming” with the new “improved and enhanced” 1987 definition of “programming” which has been expanded to explicitly covers “all forms of electronic transmission” including, i.e. explicitly, said “computer programming” transmissions.¹³

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a

¹³ The examiner maintains that the differences in the respective 1981 and 1987 definitions of “programming”:

1) represent real differences in the respective “properties” of the different kinds of “signaling” that made up the respective 1987 and 1981 subject matter; and

2) are not simply different statements of “*disclosed utilities*” as applicant might try to allege in the future.

(e.g. once again, the 1987 SPAM-type signaling subject matter that is necessarily being claimed by the pending claims is explicitly inclusive of “computer software/programming” whereas the 1981 signaling subject matter was not).

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wider net to ensnare new potential infringers, and still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?

The short answer to this question is: NOT!

The point being that applicant had every right to draft a claim based on his past 1981 parent specification which contained the 1981 definition of "programming" and to take the position that a fair reading of the 1981 "programming" terminology, e.g. in the context of said past 1981 parent specification, encompassed "computer programming" transmission too; i.e. such an "argument" being necessary in view that that 1981 definition of "programming" did not include "computer programming". Instead, applicant elected to draft a new CIP specification which modified the definition of "programming" to explicitly include "computer programming" thereby eliminating any question that the fair reading of "programming", in the context of the new 1987 CIP, now encompasses "computer programming". Again, the examiner asks:

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?

(E.G. Why does applicant believe that his new 1987 definition of "programming" should be entitled to the 1981 filing date of the old 1981 "programming" definition which it replaced?; Why should applicant's "1987 inventions", which have been re-defined by the new 1987 definition of "programming", be entitled to the 1981 filing date of "past 1981 inventions" which were defined by the past 1981 definition of "programming?"; etc,...)

O) In lines 20-26 on page 17 of the supplemental response filed 5/6/2002, applicant now alleges that the past 1981 Parent specification "implicitly" taught the downloading of "computer programming" (i.e. computer *software*).

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“To the contrary, the 1981 definition [of “programming”] implicitly includes, and the 1987 definition [of “programming”] explicitly includes, computer programming in the definition”.

Even if this erroneous allegation were true, it still would be insufficient to establish a 1981 date for the 1987 “computer programming” feature because that which is “implied” by the 1981 specification is irrelevant to section 112-1 issues. To establish section 112-1 support for a given feature, the alleged feature must at least be “inherent” to the specification in question (i.e. it must be there). Thus, applicant’s current allegation confirms the position held by the examiner that applicant’s 1981 specification does not provide section 112-1 support for recitations directed to “computer programming/software.”

P) As noted above, applicant alleges that his past 1981 Parent specification “implicitly” taught the downloading of “computer programming” (i.e. computer *software*).

“To the contrary, the 1981 definition [of “programming”] implicitly includes, and the 1987 definition [of “programming”] explicitly includes, computer programming in the definition”.

The examiner disagrees with applicant’s allegation itself.

To create support for the erroneous allegation, applicant attempts weave together a tapestry of “engineered” teachings and definitions:

- 1) Applicant falsely asserts that the past 1981 Parent specification literally used the term “programming” to refer to the “instruction signals” that were communicated through the TV/RADIO networks of its disclosed “1981 inventions”;

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2) Applicant notes that the “instruction signals” of the past 1981 specification were described as comprising signals which instructed *preprogrammed* microcomputers to perform given tasks.

3) Applicant cites an outside *Dictionary* definition of the term “program” to show that the term “program” was conventionally used to refer to “computer programming/software”; and

4) Finally, applicant argues that when one combines the above “engineered” teachings from his past 1981 Parent specification together, based on the cited *Dictionary* definition of “program”, one “implicitly” arrives at the cited *Dictionary* definition of “program.”

Unfortunately, for a variety of reasons, the tapestry woven by applicant falls apart at the slightest touch:

1) When one actually looks at the way in which the 1981 “programming” terminology was coined and used throughout applicant’s past 1981 Parent specification, i.e. the context in which it actually appears, one finds that the 1981 “programming” terminology unquestionably referred to signaling which represented scheduled TV/Radio shows (and not to “computer software” as applicant wishfully alleges). In this regard, one finds that applicant’s past 1981 Parent specification clearly distinguishes the 1981 “instruct signals” from the 1981 “programming” into which said 1981 “instruct signals” were embedded. Specifically, the past 1981 parent specification leaves absolutely no doubt that said 1981 “instruct signals” constituted ancillary/auxiliary signaling that was “associated” with, and “embedded” within, respective 1981 TV/Radio “programming”.

“One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the can duplicate the operation of a television studio automatically through the use of instructions and information signals embedded in programming either supplied from a remote source or sources or prerecorded” (emphasis added)

¹⁴
[lines 32-37 of column 3]

¹⁴ Citations have been obtained from US Patent #4,694,490.

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“Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72.” (emphasis added)

[lines 3-7 of column 11]

“The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct to remove signals from the programing as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct to add signals to programming as required”

[lines 36-42 of column 12]

“One particular advantage of these methods for monitoring programming is that, by locating the identifier signals in the audio and/or video and/or other parts of the programing that are conventionally recorded by, for example, conventional video recorders, ...”

[lines 25-29 of column 16]

“Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment” (emphasis added)

[Lines 34-38 of column 17]

“Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions” (emphasis added)

[lines 39-41 of column 17]

“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...” (emphasis added)

[lines 42-49 of column 19]

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“At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission” (emphasis added)

[lines 60-63 of column 19]

Given the above, it seems ridiculous for applicant to suggest that the term “programming”, e.g. in the context of the past 1981 specification”, ever referred to “computer software” (or even to applicant’s 1981 “instruct signals”).

2) It is also quite clear from applicant’s 1981 past parent specification that the “microcomputers” on the receiver side of the disclosed 1981 inventions were “**preprogrammed**” with the “computer programming/software” which told them *how to respond* to detected “instruct signals” that were embedded within received TV/Radio “programming.” More specifically, it seems quite apparent that each of the 1981 “instruct signals” of applicant’s 1981 inventions represented typical cuing signals/commands which instructed/triggered “**preprogrammed**” microcomputers to execute respective portions of preprogrammed software in order to perform predefined task/operation (e.g. the 1981 “instruct signals” told the 1981 microcomputers “to generate the overlay” whereas the pre-loaded 1981 computer programming/software told said 1981 microcomputers “how to generate the overlay that was to be generated”).¹⁵

“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...” (emphasis added)

[lines 42-49 of column 19]

Clearly, contrary to applicant’s erroneous allegations, there is no teaching in applicant’s past 1981 specification indicates that applicant’s 1981 “instruct signals” represented “computer software/programming” in any conventional sense of such terminology.

¹⁵ This being even more apparent when one reads the teaching of applicant’s past 1981 Parent specification in light of the “enhanced and improved” teachings of applicant’s 1987 CIP specification.

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3) The past 1981 parent specification does not offer/provide a signaling mechanism and/or structure which would have been capable of handling the large continuous sequence of data bytes required to push "computer software" through TV and/or Radio networks. Such a signaling mechanism and structure was not provided until "SPAM" packeting was introduced via applicant's subsequently filed instant 1987 CIP specification. Thus, applicant's past 1981 parent specification was not enabling of the alleged "computer programming/software" feature (i.e. the alleged "computer programming/software" feature that the past 1981 specification did not even describe/disclose).

Q) On page 150 of the amendment filed 1/28/2002 in 08/470,571, applicant states:

"The 1981 specification states:

It is the object of this invention to unlock this potential by the development of means and methods which permit programming to communicate with equipment that is external to television receivers and radio receivers, particularly computers and computer peripherals such as printers

1981 Spec., Col. 1, ll.36-41

Thus applicants' 1981 specification makes it clear that 'programming' is not just TV and Radio shows- it can also include instructions, codes, and signals that are communicated to and control e.g., computers and computer peripherals. These instructions, codes, and signals clearly fall within the definition of programming and to find otherwise is to conveniently and purposefully overlook the entire purpose of the invention." (emphasis added)

The examiner disagrees. In reading the 1981 Specification, it seems that "**the entire purpose**" ¹⁶ to which applicant alludes was the ability to provide multimedia presentations in which TV or Radio "programming" was be displayed with another supplemental media presentation, wherein the content of the supplemental media

¹⁶ The examiner notes that applicant's 1981 inventions appear to serve many purposes. Therefor, the examiner does not believe that "the invention" of applicant's 1981 specification has one "entire purpose" as is now alleged by applicant; i.e. if it does have one "entire purpose", then it is not clear to the examiner what that "entire purpose" actually is.

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presentation was related to the content TV and Radio “programming” thereby *enhancing* the content of the displayed TV and Radio “programming”. To achieve this goal, ancillary “instruct signals” and/or other ancillary “information signals” were “associated” with, and “embedded” within, the TV or Radio “programming.” These embedded “instruct and information signals” allowed the TV and Radio *programming* “to communicate” with equipment that was external to the TV and Radio receivers in order to produce the supplemental media presentation. Specifically, the associated “instruct and information signals”, which were embedded within the Radio or TV “programming”, were themselves communicated to the external equipment by the “programming” thereby causing the external equipment to produce said supplemental media presentations. Being such, it is still crystal clear to the examiner that the 1981 “programming” terminology was used in a conventional sense by the 1981 specification so as to refer to TV and Radio signaling which represented scheduled TV and Radio shows. To suggest otherwise is to conveniently and purposefully ignore the fact that applicant’s 1981 specification clearly distinguished the associated “instruct and information signals” from said “programming” into which these associated “instruct and information signals” were actually embedded:

“One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the can duplicate the operation of a television studio automatically through the use of instructions and information signals embedded in programing either supplied from a remote source or sources or prerecorded” (emphasis added)

[lines 32-37 of column 3]¹⁷

“Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72.” (emphasis added)

[lines 3-7 of column 11]

“The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct to remove signals from the programing as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct to add signals to programing as required” (emphasis added)

[lines 36-42 of column 12]

¹⁷ Citations have been obtained from US Patent #4,694,490.

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“One particular advantage of these methods for monitoring programming is that, by locating the identifier signals in the audio and/or video and/or other parts of the programing that are conventionally recorded by, for example, conventional video recorders, ...” (emphasis added)

[lines 25-29 of column 16]

“Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment”

(emphasis added) [Lines 34-38 of column 17]

“Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions” (emphasis added)

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“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...” (emphasis added)

[lines 42-49 of column 19]

“At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission” (emphasis added)

[lines 60-63 of column 19]

R) When it comes to the Section 120 priority issue, applicant alleges that the “common subject matter” requirement is one that the instant examiner has created.

“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’” (emphasis added)

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

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Applicant's allegation seems to be betrayed within the current record by applicant's own cited "authorities." For example:

a) In the second paragraph on page 27 of the Appeal Brief filed on 9/17/96 in SN 08/113,329, applicant quotes from a Board of Appeals decision:

"Rather, all that is required to preserve an effective filing date as to common subject matter is copendency or a continuous chain of copendency" [emphasis added];

b) In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]:

"However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications" [emphasis added];

and

"Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application. However, if a claim in a continuation-in-part application recites a feature which was not disclosed or adequately supported by a proper disclosure under section 112 in the parent application, but was introduced first or adequately supported in the continuation-in-part application such a claim is entitled only to the filing date of the continuation-in-part application."

Looking at the claim charts that have been submitted by applicant in the past, it is quite evident that "common subject matter" between the 1987 and 1981 application is not being claimed; e.g. assuming that it is even disclosed. For example, the claim charts in question show that the 1987 scope/meaning for limitations found within all of the currently pending amended claims are based on 1987 subject matter (e.g. "SPAM") that was first introduced via the filing of the 1987 CIP specification.

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The examiner also finds it interesting that applicant does not believe in the necessity of "common subject matter", and yet, on page 137 of the amendment filed 1/28/2002 in SN 08/470,571, cites *Studiengesellschaft Kohle v. Shell Oil Co.*, 112F.3d 1561 for the following quote:

"In other words, a claim complies with section 120 and acquires an earlier filing date if, and only if, it could be added to an earlier application without introducing new matter"

Given the new and expanded 1987 scopes and meanings that are necessarily imparted to the pending amended claims by the instant disclosure via section 112, the currently pending amended claims would most certainly have introduced "New Matter" into the 1981 disclosure if added to the 1981 disclosure given their present 1987 scopes/meanings. Specifically, 1987 teachings that only exist within the instant "1987" disclosure necessarily contribute to the scope/meaning that must now be given to the limitations of the currently pending amended claims and thus, there is simply no way that these claim limitations can be interpreted as being limited **solely** to subject matter which was adequately disclosed in the 1981 parent application" via all of the requirements of section 112. And if the claims are not supported solely by the subject matter of the 1981 application, e.g. if their scope/meaning is at all modified and/or expanded by subject matter that is found only within the instant 1987 disclosure **from which section 112 support must necessarily be derived**, then they are not entitled to the 1981 filing data.

Clearly, the pending amended claim are not entitled to the 1981 filing date!

S) Applicant erroneously believes that his currently pending amended claims are entitled to §120 "priority" of his past 1981 parent specification even if they are not directed to "common subject matter."¹⁸ According to applicant, applicant's pending amended claims are entitled to §120 "priority" even when said claims are directed to "different 1987 and 1981 subject matter"¹⁹, provided that this different 1987 and 1981 subject matter provides

¹⁸ That is: that the currently pending claims derive section 112 support based on 1981 subject matter found in the past 1981 parent specification which has been carried forward into the instant 1987 CIP specification in the form of "common subject matter".

¹⁹ As opposed to the same *subject matter* that is "common" to both specifications.

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“separate” (i.e. even different) 1987 and 1981 section 112 support for each of the pending claims’ limitations.

“[§] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.”
(emphasis added)

[See page 141 of the response filed on 1/28/2002 in application S.N. 08/470,571]

“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’”

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant’s belief does not make sense because, in applicant’s world, one could obtain the benefit of an earlier filing date for a later filed invention using nothing more than *inventive/creative* claim construction: e.g.

1) One could disclose only “*Invention B*” in a CIP application that was very different from “*Invention A*” that was disclosed in an earlier filed Parent application; and

2) Yet obtain the earlier filing date of “*Invention A*” for “*Invention B*” by carefully crafting claims in the CIP application to have quasi-generic limitations that can be separately/differently read on “*Invention A*” and “*Invention B*” in order to obtain different/separate section 112 support therefrom.

Because such a belief does not make sense, when challenged, applicant modifies his belief to include an additional requirement; namely, that the different/separate showings of section 112 support provided by the respective 1987 CIP and 1981 Parent specifications cannot be “inconsistent” with each other. The examiner agrees with applicant’s modified belief, however, the examiner disagrees as to what constitutes a “fatal inconsistency”:

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1) According to applicant, in order for 1987 and 1981 subject matter to be "inconsistent" with each other, the 1987 and 1981 subject matter must comprise respective 1987 and 1981 features/teachings that contradict each other and are therefor mutually exclusive; whereas

2) The examiner believes that the respective 1987 and 1981 subject matter are "inconsistent" with each other anytime the 1987 specification imparts a scope/meaning to the "subject matter" that is being claimed that is different from the scope/meaning that would have been imparted to the claimed "subject matter" via the 1981 specification had the same claim been introduced into the past parent application instead of the instant CIP (e.g. the specifications are inconsistent whenever "common subject matter" is not being claimed).

Again, why should any of applicant's currently pending claims ever be given an a claim interpretation that is "enhanced/improved" via the "enhanced/improved" subject matter of applicant's 1987 CIP specification, and yet obtain the 1981 filing date of the past 1981 Parent specification for this "enhanced/improved" interpretation?

T) Clearly, it would be improper for applicant to use the "new" and "expanded" disclosure of his the 1987 CIP:

1) to expand and/or modify the teachings which were originally conveyed by the disclosure of his 1981 parent application;

2) to draft new amended claims based on these "new", "expanded", and/or "modified" teachings of the 1987 CIP disclosure so as to impart the "new" and "expanded" 1987 scope and meaning to the newly drafted amended claims; and then

3) to allege that the amended claims, having the "new" and "expanded" 1987 scopes and meanings, are entitled to the 1981 priority of the originally filed parent disclosure which does not support these "new" and "expanded" 1987 scopes and meanings.

And yet that is precisely what applicant is attempting to do by alleging a 1981 filing date for the currently pending amended claims which necessarily derive their required section 112 support from subject matter that is only contained within the 557 pages of applicant's new and expanded "1987" instant disclosure.

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U) The examiner has never taken the position that applicant's currently pending amended claims should be viewed as being "limited" to one or more of the "embodiments of alleged invention" that are now described in applicant's instant 1987 CIP specification. Clearly, they are not "limited" in this way.

Instead, it is the examiner's understanding that applicant's currently pending claims must be "directed" to "subject matter" that was described in applicant's 1987 CIP specification whereby the "subject matter" that is described in the specification effectively defines the metes and bounds of the claims' limitations that are directed to it (e.g. the broadest reasonable interpretation that can be given to a claim). Being that the described "subject matter" of the specification will necessarily include descriptions pertaining to one or more embodiments of alleged invention described therein, if one were to "improve and enhance" the embodiments of the alleged invention described therein, one would clearly be at risk of "improving and enhancing" the subject matter that is being claimed too.

In claiming "priority" under section 120 for the instant claims, applicant is effectively alleging that his instant claims are directed to "subject matter" from the past 1981 parent specification that has been untouched by the filing of the CIP application; i.e. that the pending claims are reciting "subject matter" from the past parent specification that has not been "improved"/"enhanced"/changed by the teachings that have been introduced via the filing of the CIP specification. While applicant alleges this to be true, applicant has been unable to support such allegation with hard evidence (e.g. citations of section 112-1 support from the instant 1987 CIP specification which show that the "subject matter" being claimed has not been "improved"/"enhanced"/changed by CIP introduced teachings). To the contrary, all of the evidence of record shows that the instant claims are directed to "subject matter" from the instant 1987 CIP specification that has been "improved and enhanced" during its alleged migration into the instant 1987 CIP specification from the past 1981 Parent specification. Namely, when attempting to find section 112 support for the claims, applicant has been unable to cite descriptions of the claimed "subject matter" from the 1987 CIP specification that are not permeated with CIP introduced "new matter." Applicant argues that this CIP introduced "new matter" should be ignored under section 120 for the sake of some "**higher goal**"²⁰. Again, the examiner thinks not..

²⁰ The "higher goal" being the grab for the 1981 filing date of applicant's past parent specification for the enhanced/improved "1987 subject matter" that is clearly currently being claimed.

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V) Given the discussion set forth in part “S)” above, the examiner maintains that the 1987 subject matter of applicant’s instant 1987 CIP specification is “inconsistent” with the 1981 subject matter of applicant’s past parent specification because the 1987 CIP specification has introduced 1987 “enhancements and improvements” which effect the scope and meaning of everything that is disclosed in the 1987 CIP specification. Specifically, it is the examiner’s position that applicant cannot draft a claim based on the current 1987 CIP specification whose scope/meaning has not been modified via the “new subject matter” of the subsequently filed CIP application. The following examples of such “inconsistencies” are hereby noted:

1) On page 149 of the response filed 1/28/2002 in SN 08/470,571, applicant now acknowledges the fact that the same “programming” terminology was defined differently within the respective 1981 and the 1987 disclosures. Specifically:

a) The disclosure of the 1981 parent application, which was not carried forward into the instant 1987 CIP disclosure, defined the “programming” terminology to mean:

“Everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform”; whereas

b) The instant 1987 CIP disclosure defined this same “programming” term to mean :

“Everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, computer programming, as well as combined medium programming”.

Amazingly, applicant now alleges that the scope/meaning that is respectively imparted to the same “Programming” terminology by these different definitions is the same. In fact, applicant alleges that the only differences that exists between the 1981 and 1987 “programming” definitions are ones that the instant examiner has supposedly created [see page 149 of the response filed 1/28/2002 in SN 08/470,571]. Who is applicant kidding?

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Clearly, the 1981 definition defines the “programming” terminology as being Radio and TV transmissions, while the 1987 disclosure expands the definition to be “everything that is transmitted electronically.”²¹ And, contrary to applicant’s current accusation, the examiner was not present and played no part in creating or incorporating these vastly different 1981 and 1987 “programming” definitions into applicant’s respective 1981 and 1987 disclosures.

While applicant can avoid literally using the “programming” terminology itself in the currently pending amended claims, the “expanded” 1987 definition of the “programming” terminology nonetheless continues to impart its expanded scope and meaning onto all of the 1987 disclosures that are described in terms of this expanded 1987 “programming” definition. And thus, in a like manner, these expanded 1987 disclosures continue to impart expanded 1987 scopes and meanings onto the limitations of the currently pending amended claims which necessarily derive required section 112 support therefrom. And being that the “programming” terminology does not constitute “common subject matter” between 1981 and 1987 disclosures, as is evident from its vastly different 1987 and 1981 definitions, it too refutes applicant’s current claim to the 1981 date.

As is evidenced above, the instant 1987 disclosure explicitly defines and uses the “programming” terminology in a way that is vastly different both in scope and meaning from the way that this the same “programming” terminology was previously defined and used within the disclosure of the 1981 parent:

Evidencing the fact that one cannot assume that the terminology shared by the respective 1981 and 1987 disclosure is indicative of “common subject matter.”

²¹ In fact, the 1987 definition not only expands the “programming” terminology to mean “everything transmitted electronically”, but this 1987 expanded “programming” definition explicitly adds “computer programming”, “broadcast print”, and “combined medium programming” to the “television and radio transmissions” which made up the 1981 “programming” definition.

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2) The “instruct signals” of applicant’s 1987 specification comprised computer software/programming whereas the “instruct signals” of applicant’s 1981 specification did not comprise computer software/programming:

Also evidencing the fact that one cannot assume that the terminology shared by the respective 1981 and 1987 disclosure is indicative of “common subject matter.”

3) While the “inconsistent” use/scope/meaning of the “programming” and “instruct signal” terminology between 1987 and 1981 applications is self-evident, the inconsistent use of other shared terminology is less conspicuous. The term “signal word” represents but just one example of the more subtle inconsistencies that exist between the 1981 and the 1987 disclosures.

The 1981 inventions of the 1981 specification were described as having distributed discrete digital information, in the form of “signal units”, from a transmitter site to a plurality of receiver as ancillary data embedded within TV and Radio transmissions. To transmit these “signal units”, the bits from one or more of the “signal units” were organized into one or more discrete strings of bits. Each of these discrete bit strings was then embedded, at a respective discrete time and/or location, within the transmitted TV or radio programming as a “signal word”. Specifically, as defined by the 1981 specification, each “signal word” represented a respective occurrence/“appearance” of ancillary signaling within the distributed programming:

“The term ‘signal word’ hereinafter means one full discrete appearance of a signal as embedded at one of time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio. Such strings may or may not have predetermined data bits to identify the beginnings and ends of words. Signal words may contain parts

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of signal units, whole signal units, or groups of partial and whole signal units or combinations”²²

[note lines 3-12 of column 3 in US Patent #4,694,490]

Although this 1981 definition of the “signal word” terminology has literally been carried forward into the instant 1987, it appears to have been carried forward only in a “cosmetic” sense. For while the 1987 disclosure includes a statement which indicates that the “signal word” terminology will be used throughout the 1987 disclosure in the same manner as it was used throughout the 1981 parent disclosure [see the last 10 lines on page 14 of the instant disclosure], in practice, this statement is false and wholly untrue. To the contrary, in much to most to all of the remaining portion of the instant 1987, the term “signal word” is not used for the so stated/coined purpose. Instead, in much to most to all of the remaining portion of the 1987 disclosure the “signal word” terminology is used in a way that is (at best) inconsistent with its explicitly coined definition and (at worst) is “repugnant” to its explicitly coined definition. Specifically, in the remaining portions of the 1987 disclosure, the term “signal word” is now used to refer to the N-bit bytes of “computer-type” data which make up the digital information that is now distributed and/or processed by the 1987 inventions [e.g. note: the last three lines on page 54 of the instant disclosure; lines 4-8 on page 56 of the instant disclosure; lines 9-13 on page 59 of the instant disclosure; etc,...].

In summary, “signal word” was explicitly defined/coined early in the 1987 disclosure for the expressed purpose of referring to each occurrence/appearance of ancillary signaling within the distributed TV/Radio/Other programming (i.e. corresponding to its definition in the 981 specification of the parent). However, via sleight of hand, the alleged meaning of the “signal word” terminology was quickly changed within the instant 1987 disclosure so as to refer to the “words”/bytes of digital computer-type data which comprise (and did not carry) said ancillary signaling; i.e. which is quite different from its use in the 1981 parent use/definition.

²² “The term ‘signal units’ hereinafter means one complete signal instruction or information message unit. Examples of signal units are a unique code identifying a programming unit, or a unique purchase order number identifying the prior use of a programming unit, or a general instruction identifying whether a programming unit is to be retransmitted immediately or recorded for delayed transmission.” [note: lines 64-68 of column 2 and lines 1-3 of column 3 in US Patent #4,694,490; and lines 25-32 of the instant disclosure]

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As with the "programming" terminology, the 1987 CIP disclosure's smeared use/misuse of the explicitly coined "signal word" terminology does not represent "common subject matter" with respect to the disclosure of the 1981 parent and therefor this smeared use/misuse of this terminology is not entitled to the 1981 filing date for reasons addressed above. The smeared use/misuse of the "signal word" terminology:

Evidences the fact that even terminology that has been explicitly coined in both application for the same alleged purpose, is not always what it appears.

Such a condition simply adds to all the uncertainty as to exactly what subject matter, if any, has been carried forward from the 1981 disclosure into the 1987 disclosure.

[ALSO, SEE "APPENDIX C" ATTACHED HERETO]

4) As if all the existing uncertainty was not enough, it seems that applicant has come to a realization that some/much/most of the features now being claimed with respect to the instant 1987 CIP disclosure were not "explicitly" disclosed in the past 1981 Parent specification. Because of this, applicant now alleges that such features were "inherently" present and/or "implicitly" present within the teachings of the past 1981 parent specification.

"To the contrary, the 1981 definition [of "programming"] implicitly includes, and the 1987 definition [of "programming"] explicitly includes, computer programming in the definition".

[lines 20-26 on page 17 of the supplemental response filed 5/6/2002 in 08/470,571]

"An applicant is entitled to priority for a claim that was inherently described in an earlier application and explicitly described in a later application"

[note the last 15 lines on page 140 of the response filed on 1/28/2002 in application SN 08/470,571].

With respect to such new allegations, the following is noted:

a) What might have been "implicitly" taught in the past 1981 parent specification is irrelevant to section 112-1 support issues [for

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required section 112-1 support to have been provided, the recited feature must be there (the recited feature must be "inherent" in the teaching, not simply "implied")); and

b) The implication of claimed subject matter being "inherently" embedded within teachings of the 1981 disclosure, e.g. and previously patented claims derived therefrom, is profound (e.g. especially as it pertains to the issue of double patenting). Thus, it is respectfully requested that applicant now identify:

1. All of those features from the 1987 disclosure that are "inherently" contained within teachings of the 1981 parent disclosure; and
2. All of those teachings from the 1981 disclosure which "inherently" contain features that are now explicitly disclosed in the instant 1987 CIP specification

[especially when the issue of "inherent" features pertains to subject matter that is currently being claimed within the instant pending amended claims or to subject matter which has been claimed within previously patented claims].

For the record: Applicant is reminded that a 1987 feature is only "inherent" in a 1981 teaching when the feature is necessarily found within the 1981 teaching (i.e. it must be there). The fact that the 1987 feature was most probably there, was most likely there, was almost certainly there, was obviously there, or was "implicitly" there is insufficient to establish something as being "inherent".

5) In order to transmit a wider range of control and messaging information than was previously possible, and in order to transmit this wider range of control and messaging information more efficiently within "signal word"-like intervals of Radio/TV/"ALL OTHER" forms of electronic transmissions, applicant's instant 1987 CIP disclosure introduced a packetized data format called "SPAM" (see figures 2E-2K of the instant disclosure). In applicant's 1987 "SPAM" environment, it was this "SPAM" packeting which carried an expanded range of "signal unit"-like

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information, and it was the "SPAM" packets themselves whose bits were organized into sequences so as to be transmitted within "signal word"-like intervals of TV/Radio/"ALL OTHER" forms of electronic transmission; e.g. the expression "-like" being appended here and above in order to emphasize the fact that the information carried within "SPAM" packeting, and the "strings" of bits derived from such "SPAM" packeting, are different from the 1981 "signal units" and 1981 "signal words" that were explicitly defined by the 1981 even though such terminology was carried forward, i.e. "cosmetically", into the 1987 disclosure [see part "2)" of part "S)" of this section]. The fact that this 1987 "SPAM" transport scheme was not disclosed within applicant's 1981 parent application was clearly argued by applicant themselves during ITC Investigation No. 337-TA-392:

"Even more difficult to understand is PMC's assertion that the French chef example [in the '490 patent], and I am quoting from their brief, 'it says nothing about the recipe being sent in any type of SPAM signal'Technically, they're correct, because the term 'SPAM signal' was introduced in the '277 patent or the specification which led to the '277 patent [i.e. the instant 1987 CIP disclosure], and it doesn't appear in the '490 patent [i.e. the 1981 disclosure of the past parent] "
[1997 ITC Lexis 307,*254 (Part II)]

As it applies to the issue of section 120 priority, the examiner maintains that the applicant [PMC] was more than just "*technically correct*". Specifically, while both of applicant's 1981 and 1987 inventions operated to transmit digitally encoded ancillary signaling within TV/RADIO programming, only the 1987 inventions did so using the more sophisticated 1987 packetized "SPAM" transport technology that was first introduced via the instant disclosure as originally filed within the 1987 CIP. And because applicant submits that all of the recited auxiliary "signaling" of the currently pending claims derive their required Section 112-1 support from the more advanced 1987 "SPAM" technology of the instant 1987 CIP specification, applicant refutes his own claim to the 1981 date of the parent application for these claims being that the 1987 "SPAM" technology now being claimed was not disclosed or supported by the past 1981 parent's specification.

[NOTE: "APPENDIX A" of applicant's response filed 6/7/2000 in SN 08/470,571; and "APPENDIX C" of this Office action].

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In summary, because all of the currently pending amended claims have at least one limitation whose scope and meaning is defined by 1987 "SPAM" signaling (a fact that is evident in all of the claim charts that applicant has submitted to date for the purpose of demonstrating 112-1 support), and because the scope and meaning defined by "SPAM" exists only in the instant 1987 disclosure, all of the currently pending amended claims are (at best) only entitled to the 1987 filing date of the originally filed CIP application; e.g. none of the claims are entitled to the 1981 priority date of the parent disclosure which did not describe "SPAM".

6) Applicant alleges that many/most/all of his pending claims derive required section 112 support from the "*WALL STREET WEEK*" embodiment that was described in the instant disclosure (wherein said instant disclosure was originally filed within a CIP application on 9/11/1987). During the present prosecution, applicant has alleged that these same pending claims are entitled to priority under Section 120 based on a similar "*WALL STREET WEEK*" embodiment that was described in the disclosure of the parent application filed 11/3/81. Since applicant's 1987 disclosure is different from applicant's 1981 disclosure, and since applicant's 1987 disclosure did not formally incorporate the 1981 disclosure into the 1987 disclosure physically or via an "*incorporation by reference*", the pending claims are only entitled to 1981 priority for the subject matter that was common to both disclosures. While the "*WALL STREET WEEK*" embodiment that is described in applicant's 1987 disclosure and the "*WALL STREET WEEK*" embodiment that is described in applicant's 1981 disclosure have their similarities, the actual methods/details/structures used to carry out these two "*WALL STREET WEEK*" embodiments are quite different. The following is provided to exemplify such differences:

a) It is noted that:

1) applicant's 1987 disclosure references figure 1 of the 1987 disclosure as illustrating the receiver structure that was used to implement the 1987 "*WALL STREET WEEK*" embodiment [note the discussion which begins in line 21 on page 20 of applicant's 1987 disclosure]; and

2) applicant's 1981 disclosure references figure 6c of the 1981 disclosure as illustrating the receiver structure that

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was used to implement the 1981 "WALL STREET WEEK" embodiment [note the discussion which begins on line 31 of column 19 of US Patent #4,694,490].

While these two figures use a common label "MICROCOMPUTER" and reference numeral "205" to identify one element of the respective structures, the respectively identified elements are clearly different in both structure and operation:

showing that, as with applicant's use of common terminology, it would also be erroneous for one to assume that common labels and common reference numerals were used in applicant's 1981 and 1987 disclosures as an indication of common elements or "common subject matter".

The fact that commonly labeled elements in applicants 1981 and 1987 disclosures represent different structures/operations/scopes is evidenced in the following:

1) the "MICROCOMPUTER" (205) of applicant's 1987 disclosure actually comprised the circuitry required for overlaying locally generated graphics over the related/received TV signal broadcast.

Whereas, in contrast, the "MICROCOMPUTER" (205) of applicant's 1981 disclosure did not comprise such circuitry but instead outputted locally generated graphics to the TV receiver so that they could be overlaid over a related/received TV signal broadcast;

2) the "MICROCOMPUTER" (205) of applicant's 1987 disclosure actually comprised the circuitry required for receiving, loading, and running **downloaded** computer software (i.e. the disclosed "program instruction set") which was used to control the "MICROCOMPUTER"(205) of applicant's 1987 disclosure to execute functions defined by ones of later received discrete instructions. Whereas, in contrast, the "MICROCOMPUTER" (205) of applicant's 1981 disclosure was **pre-programmed** with computer software which was used to control the "MICROCOMPUTER"(205) of applicant 1981 disclosure to execute functions defined by ones of received discrete instructions;

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b) In view of the differences in structure that is set forth in part a) of this paragraph, it is clear that the method used to overlay graphic images on a related/received TV signal broadcast in the 1987 "WALL STREET WEEK" embodiment is quite different from the method used to overlay graphic images on a related/received TV signal broadcast in the 1981 "WALL STREET WEEK" embodiment. Most notably, in the 1981 "WALL STREET WEEK" embodiment the overlay method was performed by cuing a microcomputer with instructions signals (e.g. with some unspecified type of cuing signals) which caused the microcomputer to execute ones of locally stored software instructions which were required to generate, output, and overlay locally generated graphics onto a received/related video signal broadcast whereas, in sharp contrast, in the 1987 "WALL STREET WEEK" embodiment the overlay method was performed by first **downloading software** to the microcomputer and then cuing the microcomputer with instructions signals (e.g. cuing signals) which caused the microcomputer to execute the downloaded software to generate, output, and overlay locally generated graphics onto a received/related video signal broadcast.

c) The examiner agrees that applicant is entitled to the 1981 priority date only for those claims of the present application which are limited to subject matter that was **common** to both of applicant's 1981 and 1987 disclosures; i.e. that is limited to the subject matter that was previously disclosed in the 1981 parent. Under the present circumstances ²³, it is maintained that applicant is not entitled to the 1981 priority date for claims in which the **same/common support** can not be shown to exist in both of applicant's 1981 and 1987 disclosures. More specifically, the examiner rejects any allegation that the currently pending amended claims are entitled to the priority of their 1981 disclosure for claims which depend from their 1987 disclosure when it can be

²³ The present disclosure: 1) comprises the 1987 disclosure and is, at best, a CIP of the disclosure filed in 1981; and 2) comprises the 1987 disclosure into which the 1981 disclosure has not been incorporated (i.e. neither literally nor by reference).

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shown/alleged that each claim has different interpretations which allow them to be read on applicant's 1987 "WALL STREET WEEK" embodiment (via a first interpretation) and on applicant's 1981 "WALL STREET WEEK" embodiment (via a second interpretation that is different from the first); i.e. priority to the 1981 disclosure should/will only be given if applicant can show that the way that the claims are being interpreted is the same for both disclosures (i.e. if the teachings on which each claim is based is **common** to both disclosures). To permit otherwise, would improperly create a tool by which an applicant could obtain the earlier filing date of a first filed invention, for a later filed invention, by carefully drafting subsequently filed claims in a manner which allows said drafted claims to be read on both inventions via different interpretations of the same claims. In the present application, it would be improper for the examiner to give a 1981 priority date to claims that are directed to applicant's 1987 "WALL STREET WEEK" embodiment even if it can be shown that the same claims can be interpreted in a manner which allows them to be read on applicant's 1981 "WALL STREET WEEK" embodiment; i.e. unless it can show that the support that is provided for the claims by both disclosures is in fact the same/common to both disclosures. Because the disclosed structures and processes used to implement applicant's 1987 "WALL STREET WEEK" embodiment clearly differ from the disclosed structures and processes used to implement applicant's 1981 "WALL STREET WEEK" embodiment (note: parts a and B of this paragraph), the examiner maintains that the subject matter which is actually common to both disclosures, e.g. that subject matter of the 1987 disclosure which is actually entitled to priority of the 1981 disclosure, if any, is very small indeed.

7) As is evident from the claim charts filed in SN 08/470,571 on 6/7/2000, all of the recitations that are directed to the signals/instructions/data that are conveyed as ancillary signaling within Radio and TV Programming transmissions, derive their required Section 112 support from the "SPAM" signaling that was first introduced by applicant's "1987" instant disclosure. Therefor, the scope and meaning that must be given to these signals/instructions/data recitations under section 112, e.g. their broadest

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reasonable interpretations, is necessarily defined/interpreted based said on said "SPAM" signaling. However, "SPAM" signaling was not disclosed in the 1981 parent and, therefor, applicant's claim to the earlier 1981 filing date is refuted; i.e. the scope/meaning imparted to the currently pending amended claims by "SPAM" of the instant "1987" disclosure would not have been imparted to these same limitations by the earlier filed 1981 disclosure which lacked any discussion of "SPAM" therein; e.g. evidencing the fact that a "different invention"/"New Matter"/"different subject matter" has now been disclosed and claimed within the instant application.

8) The examiner notes that the basic requirements of section 120 includes "continuity of disclosure". Specifically, for priority to an earlier filing date to be established, section 120 requires that the invention now sought to be patented in a child application to have been "disclosed in the manner provided by the first paragraph of section 112" within the disclosure of the parent application. Significantly, section 120 does not indicate that only the descriptive requirement of section 112-1 must be met, but instead it indicates that all of the requirements of section 112-1 must be met [e.g. this includes the "enablement" requirement and the "best mode" requirement too].

TRANSCO [38 F.3d 551; 32 U.S.P.Q.2D (BNA) 1077] was cited in the last Office action. The TRANSCO decision determined that one is not required to update his "best mode" when filing a continuation. Thus, it is true that the current applicant was not required to update his "best mode". However, applicant chose to update it. Unfortunately, in *dicta*, Judge Rich warned that requiring an applicant to update the best mode when filing the continuation application defeats the purpose of the "continuation":

"It must be understood that the introduction of a new best mode disclosure would constitute the injection of 'new matter' into the application and automatically deprive the applicant of the benefit of the earlier filing date of the parent or original application for any claim whose validity rests on the new best mode disclosure".

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During the present prosecution, the examiner has simply adopted the position of Judge Rich as set forth in this decision. The examiner acknowledges that TRANSCO has been cited by the examiner for the clarity in which its *dicta* explains the current examiner's understanding of the present issues, and not for "authority" given by the decision.

9) The receiver station circuitry of applicant's 1981 inventions, e.g. that disclosed in the 44 page disclosure of the 1981 parent application, all appear to have been:

a) "pre-programmed" with the computer programming (i.e. software) that was necessary to detect and recognize the occurrence of certain predetermined digital codes in data that was embedded within received TV and Radio program transmissions; and

b) "pre-programmed" with the computer programming (i.e. software) that instructed the receiver station circuitry as how to respond when a given one of these certain digital codes was in fact detected/recognized.

Specifically, in the 1981 disclosure, the receiver side circuitry was pre-programmed so as to be effectively "triggered"/"cued" by certain detected/recognized ones of the embedded digital codes in order to executed a respective portion of the pre-stored software (i.e. a respective "subroutine") thereby causing the receiver station to operate in a predetermined fashion.

In contrast, the receiver station circuitry of applicant's 1987 inventions, e.g. that disclosed in the 557 page disclosure of the 1987 CIP, had the advantage that the pre-programmed software itself could now be changed/modified (i.e. "re-programmed") via a new and very different type of data, i.e. "SPAM" messages, which were now embedded within the received TV and Radio programming. The ability to re-program the receiver stations from a distance (e.g. remotely) meant that the way in which the receiver stations of the system operated/responded to detected/recognized digital codes (now transmitted within "SPAM

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messages" too) could be change on the fly (i.e. without a visit from a service technician being necessary).

Given the above, it is clear that the 1987 inventions do not represent "common subject matter" with respect to the 1981 inventions even though they can both could be operated, in very different ways, to produce/provide a similar effect/"application"; e.g. such as respective 1981 and 1987 "WALL STREET WEEK" applications. However, the vast difference in the nature of the 1987 and 1981 inventions appears to be partially masked by the repugnant use (i.e. misuse) of the "computer program" terminology by the 1987 disclosure to encompass things other than computer "software". For example, in lines 13-20 on page 427 of the instant disclosure, the 1987 "invention" was explicitly described as comprising a computer system which operated to produce combined medium combining at respective subscriber stations via the transmission of one "computer program" (e.g. software) to all the computers at all of the subscribed stations. Yet, as an alleged example such computer system operation (e.g. lines 20-34 on page 427), the 1987 disclosure repugantly cites an operation during which the transmitted SPAM messages were carrying codes which only triggered/cued specific receiver responses within already pre-programmed/re-programmed receiver station circuitry; e.g. as opposed to actually citing an operation during which "software" was being downloaded to re-program the receivers (e.g. as described in lines 5-21 on page 24 of the instant disclosure). By using the "computer program" terminology in this repugnant fashion, the 1987 disclosure attempts to impart some legitimacy to the erroneous claim that the 1981 disclosure described the downloading of "computer software/programming" too; i.e. the argument being that because the trigger/cuing type codes of the 1987 disclosure have been erroneously defined as having comprised "computer programming" (e.g. software), then the corresponding cuing/trigger codes of the 1981 disclosure must be erroneously considered computer programming/software too [a position which also appears to be reflected in applicant arguments (e.g. note example #2 under "Section II" in the Office action mailed on 8/27/01 in SN 08/470,571)]. The result is still further confusion!

10) etc,....

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SECTION II: Arguments/Allegation (addressed)**1) “Interactive Video” recitations [note the discussion on page 106 of the response filed SN 08/470,571]:**

The only place that the terminology “interactive video” is ever used in the entire 557 pages of applicant’s instant “1987” disclosure is that occurring line 22 on page 8. And at this one occurrence, applicant has in fact used the terminology in its conventional sense so as to refer to the retrieval/serving of stored video information based on requests/desires/inputs of a user.

In contrast to such conventional “interactive video” systems, applicant’s 1987 disclosure was directed to inventions that provided “personalized programming” (e.g. the “WALL STREET WEEK” representing but one embodiment of such inventions) wherein such “personalized programming” was created by “automatically” displaying locally generated “personalized” information over received “programming” when the locally generated information has specific relevance to said received programming [note lines 21-23 on page 27 of the instant disclosure]. Further, as noted before, it was the expressed intent of applicant disclosure to provide the personalized programming “automatically” and without viewer interaction [SEE: lines 27-34 on page 11 of the instant disclosure; lines 18-20 on page 91 of the instant disclosure; lines 13-34 on page 427 of the instant disclosure; etc].

Despite the original teachings and understandings set forth by the instant disclosure as originally filed, applicant now alleges/argues that the receiver of his system might now be construed as a “interactive video” apparatus in the same way that an alarm clock might be construed as an “interactive” apparatus. The examiner thinks not. Again, in the one instance that “interactive video” was used in the instant disclosure seems to show that applicant understood the meaning/significance of the “interactive video” terminology as conventionally used by those of ordinary skill in the art; i.e. an understanding which applicant appears to have lost with the passage of time given his current arguments.

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2) Applicant continues to misunderstand and/or misrepresent the Teletext "prior art".

The examiner notes that those of ordinary skill in the art, at the time of applicant's alleged invention, had long recognized the fact that the vacant lines which occur during the VBI of transmitted TV programming transmissions could be used to carry addition auxiliary/ancillary information through a TV network. It had also long been recognized that coded character/graphic image data represented one type of information which was to be desirably conveyed by these vacant lines. The transmission of such coded character/graphic images was known as "Teletext".

Because of inherent bandwidth and noise considerations, it was found that each vacant line of transmitted TV programming could only carry between 30 and 40 bytes of digital information. In contrast, to transmit enough coded data to convey a full character/graphics video frame, it was found that somewhere between 700-800 bytes of coded data was needed. Obviously all 700-800 bytes of codes data could not fit within a single vacant line period that was only capable of carrying between 30 and 40 bytes. Therefor, in order to convey coded data representing the full character/graphics frame within the vacant line intervals of the transmitted TV programming, the 700-800 bytes of each coded image frame had to be broken up into a plurality of discrete 30 to 40 bytes chunks/portions and conveyed via a respective plurality of the vacant line periods. On the receiver side of the system, the conveyed chunks/portions of a coded image frame which was to be received/displayed had to be: identified in their respective video line periods; recovered/extracted from their respective line periods; and re-assembled back into the original 700-800 byte sequence. The examiner maintains that all "standardized" Teletext systems operated to convey coded character data in the manner discussed above.

Additionally, at the time of applicant's alleged invention, those skilled in the art had recognized that these "standardized" Teletext systems could transmit other types of data using the same data "page" format that was used to carry the 700-800 bytes of coded character/graphic data. For example, it was understood by those of ordinary skill in the art that 700 to 800 bytes of "computer software" could be conveyed in the vacant lines of transmitted TV programming as Teletext "pages", in the same way that the 700-800 bytes of coded character/graphics data had been conveyed; e.g. by breaking 700-800 byte sections of software down into the required 30-40 byte chunks/portions that were required in order to fit within respective vacant TV line intervals. The transmission of computer software via "standard" Teletext pages was conventionally known as: "*Telesoftware*".

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Given the above, the examiner maintains that applicant's suggestion that "standardized" Teletext systems did not convey its "information" as discrete signal chunks/portions evidences a very real misunderstanding and/or misrepresentation of conventional Teletext "prior art" on the part of applicant. In fact, applicant's latest position constitutes another link in a long chain of previously submitted misunderstandings/misrepresentations of such Teletext "prior art":

- 1) Applicant has erroneously alleged that coded Teletext character/graphics data itself comprised displayable data which was simply received and transferred directly to a display device for display thereby requiring no signal processing; e.g. when in fact coded Teletext data actually represented respective "series of instructions" which were used to instruct the Teletext decoders as to how to "locally generate" desired TV images/frames [note "APPENDIX E" attached hereto];
- 2) Applicant has erroneously alleged that Teletext decoders were not "signal processors"; i.e. according to applicant's erroneous allegations, Teletext decoders only buffered and passed received Teletext data directly to a display device for display thereon without any "signal processing" thereof (e.g. such a characterization of Teletext decoder operation is simply untrue);
- 3) ETC,...

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SECTION III: Additional Issues (addressed)

1) In lines 2-8 on page 142 of the amendment filed on 1/28/2002 in application SN 08/470,571, applicant suggests that the examiner has objected to the fact that applicant provided citations of dual 1981 and 1987 section 112 support for the limitations of the pending amended claims. No such objection has ever been raised by the examiner. To the contrary, the examiner finds such citations of dual support to be most helpful (i.e. when presented in the form of claim charts).

Having said this, the fact remains that examiner/Office was unquestionably misled by the many statements made by applicant concerning the "consequences" of Section 120 "priority". The reason that these statements misled the examiner/Office seems self evident from the statements themselves. For example, in the last 7 lines on page 24 of the Appeal Brief filed in SN 08/113,329 on 9/17/1996, applicant states:

"The case law makes clear that the only inquiry concerning claims filed in a subsequent continuation application pursuant to Section 120 is whether they are adequately supported in under Section 112, first paragraph, in the initial application. If the support exists, the inquiry is at an end."

And the statement made in the remarks section of many amendments stating that:

"The present application claims priority under 35 USC §120 of the following applications.....Consequently, Applicants will demonstrate disclosure only with respect to the '81 case,..." [e.g. see lines 9-21 on page 000507 of the Appendix in the document mailed on 9/10/01 in SN 08/474,139]

Such statements misled the examiner/Office into believing that, as a consequence of Section 120, applicant was permitted to use the disclosure of his 1981 parent application alone, e.g. in place of the instant 1987 disclosure, to fulfill section 112 requirements when addressing/replying to Section 112 rejections. However, the examiner/Office now understands that, because applicant's past 1981 parent disclosure was not incorporated into the instant disclosure, the 1981 specification cannot be relied upon by applicant for showings of section 112 support when addressing/responding to rejections

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made under Section 112; i.e. all section 112 Support must come from the instant "1987" disclosure alone.

The "*objections*" made by the examiner in the last Office Action were raised because the examiner perceived a continuation, on the part of the applicant, of the same arguments that misled the examiner/Office in the first place. By raising these "*objections*", the examiner hoped to elicit a response from applicant acknowledging the fact that the instant "1987" disclosure was the only disclosure which could be used to fulfill the requirements of section 112 with respect to the limitations of the currently pending amended claims (the significance of the 1981 disclosure is relegated only to the secondary issue of Section 120 priority). The examiner wished to make sure that the examiner and applicant were now on the same page concerning this issue. And, at least one point in applicant's last response, the desired acknowledgment appears to have been provided [see the last 5 lines on page 141 of the amendment filed on 1/28/2002 in SN 08/470,571].

2) In the last 5 lines on page 141 of the response filed on 1/28/2002 in 08/470,571, applicant now acknowledges that the 1981 application was not incorporated into the 1987 application. As a consequence, applicant also appears to understand that all Section 112 support must come solely from the "instant" 1987 disclosure if the section 112 requirements are to be satisfied. If such is true, then it is not understood how applicant can now adopt the position:

"the [examiner's] assumption that 'all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure' is mistaken and wholly unsupported." ²⁴
[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

Namely, if all section 112-1 support for all of the claims' limitations must necessarily come from the instant "1987" disclosure alone (e.g. in light that the disclosure of the 1981 parent was not incorporated into the instant 1987

²⁴ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant specification. This is not to say that the resulting scope of the pending claim is limited only to that which it must necessarily be directed.

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disclosure), then how can a limitation of a claim be directed to (i.e. obtain required section 112-1 support from) anything but that which is described within the said instant 1987 disclosure? Is applicant suggesting that the pending amended claims are **not** necessarily directed to, do **not** necessarily derive section 112-1 support from, and are **not** necessarily claiming, subject matter that is found in the instant 1987 disclosure? Further clarification is most urgently needed.

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SECTION IV: During the present prosecution, many of the same issues have been raised in different ones of the many copending applications. In at least some cases, these issues appear to have been handled and addressed inconsistently between applications. Thus, the following “list” of positions taken by the examiner/Office in regard to such overlapping issues has been created, and will be maintained by the Office, in an attempt to ensure consistency in the way that these issues are handled between applications in the future.

THE EXAMPLES:

1) In lines 2-8 on page 142 of the amendment filed on 1/28/2002 in application SN 08/470,571, applicant suggests that the examiner has objected to the fact that applicant provided citations showing dual 1981 and 1987 section 112 support for the limitations of the pending amended claims. No such objection has ever been raised by the examiner. To the contrary, the examiner found applicant’s citations of dual support to be one of the most helpful aids that applicant has provided to date (i.e. when presented in the form of claim charts).

Having said this, the fact remains that examiner/Office was unquestionably misled by the many statements made by applicant concerning the “consequences” of Section 120 “priority”. The reason that these statements misled the examiner/Office seems self evident from the statements themselves. For example, in the last 7 lines on page 24 of the Appeal Brief filed in SN 08/113,329 on 9/17/1996, applicant states:

“The case law makes clear that the only inquiry concerning claims filed in a subsequent continuation application pursuant to Section 120 is whether they are adequately supported in under Section 112, first paragraph, in the initial application. If the support exists, the inquiry is at an end.”

And statements made in the remarks section of many amendments in which applicant states:

“The present application claims priority under 35 USC §120 of the following applications.....Consequently, Applicants will demonstrate disclosure only with respect to the ‘81 case,...”

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[e.g. see lines 9-21 on page 000507 of the Appendix in the document mailed on 9/10/01 in SN 08/474,139]

These statements misled the examiner/Office into believing that, as a consequence of Section 120, applicant was permitted to use the disclosure of his 1981 parent application alone, e.g. in place of the instant 1987 disclosure, to fulfill section 112 requirements when addressing/replying to Section 112 rejections. However, the examiner/Office now understands that, because applicant's past 1981 parent disclosure was not incorporated into the instant disclosure, the 1981 specification cannot be relied upon by applicant for showings of section 112 support when addressing/responding to rejections made under Section 112; i.e. all section 112 Support must come from the instant "1987" disclosure alone.

The "*objections*" made by the examiner in 08/470,571 were raised because the examiner perceived a continuation, on the part of the applicant, of the same arguments that misled the examiner/Office in the first place. By raising these "*objections*", the examiner hoped to elicit a response from applicant acknowledging the fact that the instant "1987" disclosure was the only disclosure which could be used to fulfill the requirements of section 112 with respect to the limitations of the currently pending amended claims (the significance of the 1981 disclosure is relegated only to the secondary issue of Section 120 priority). The examiner wanted to be sure that the examiner and applicant were now on the same page concerning this issue. And, on at least one occasion, such an acknowledgment appears to have been provided by applicant [see the last 5 lines on page 141 of the amendment filed on 1/28/2002 in SN 08/470,571].

2) Applicant does not believe that "common subject matter" is required for "priority" under Section 120. Instead, according to applicant, the only thing that applicant needs to do in order to obtain the earlier 1981 filing date for his pending amended claims is to show that each of his pending amended claims can be given different 1987 and 1981 claim interpretations which allows each claim to be supported, in parallel, by "different subject matter" from the 1981 and 1987 specifications.

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“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.” (emphasis added)

[Page 141 of applicant’s response filed on 1/28/2002 in application S.N. 08/470,571]

“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’”

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant’s position seems to be wrong.

“However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications” (emphasis added)

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

“Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the

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parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application." (emphasis added)
[Kirschner, 305 F.2d 897 (C.C.PA1962)]

3) In the last 5 lines on page 141 of the response filed on 1/28/2002 in 08/470,571, applicant acknowledged that the 1981 application was not incorporated into the 1987 application. As a consequence, applicant also appears to understand that all Section 112 support must come solely from the "instant" 1987 disclosure if the requirements of section 112 are to be satisfied. If applicant knows such to be true, then it is not understood how applicant can then adopt the position that:

"the [examiner's] assumption that 'all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure' is mistaken and wholly unsupported."²⁵

[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

Namely, if all section 112-1 support for all of the claims' limitations must necessarily come from the instant "1987" disclosure alone (e.g. in light that the disclosure of the 1981 parent was not formally incorporated into the instant 1987 disclosure), then how can a limitation of a claim be directed to (i.e. and obtain required section 112-1 support from) anything but that which is described within the said instant 1987 disclosure? Is applicant suggesting that the pending amended claims are **not** necessarily directed to, do **not** necessarily derive section 112-1 support from, and are **not** necessarily claiming, subject matter that is found in the instant 1987 disclosure?

²⁵ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant specification. This is not to say that the resulting scope of the pending claim is limited only to that which it must necessarily be directed.

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4) Applicant has alleged that "Teletext decoders" did not "locally generate" the images that they outputted/displayed. According to applicant, Teletext decoders only transferred, to their outputs, displayable image data that was received at their inputs. The examiner rejects such a notion. The following is noted:

a) That, as was exemplified via the discussion provided on page 5 of the appendix that was attached to a 1981 "PETITION FOR RULEMAKING" submitted to the FCC ²⁶, it was notoriously well known in the art that transmitted Teletext data *typically* comprised a "series of instructions" which instructed the Teletext decoders on how to "generate" the desired images which were to be outputted/displayed;

b) That conventional Teletext decoders *typically* comprised "character generators"; i.e. such "character generators" would not have been required had the received Teletext data actually comprised displayable image data as alleged by applicant; and

c) That transmitted Teletext data *typically* comprised of ASCII-type codes; i.e. wherein one of ordinary skill in the art would have understood the fact that these ASCII-type codes are not themselves displayable. Specifically, these ASCII-type codes only identified the way in which locally stored pixel patterns which were locally retrieved and locally assembled into image frames, e.g. via the "character generators", in order to locally generate the images that were outputted/displayed.

²⁶ SEE: APPENDIX E and APPENDIX F of the latest Office action in SN 470,571.

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Clearly, Teletext decoders operated to "*locally generate*" the images that they outputted and displayed! ²⁷

5) Applicant's 1987 inventions used a "SPAM" transmission packet structure to transmit ancillary information through the TV broadcast networks. By using the "SPAM" packet structure, a transmission scheme was established in which a piece of coherent "information", e.g. such as a complete "processor instruction", could be broken down into a plurality of "partial information" segments and communicated through the TV network within/as respective "discrete (packet) signals". On the receiver side of the 1987 inventions, the partial information from the plurality of discrete signals could be recovered and re-organized back into the original piece of coherent "information (e.g. re-organized back into the single complete processor instruction).

Applicant has alleged the above described "partial information" transmission scheme is a key feature which distinguishes applicant's alleged 1987 inventions over Teletext "prior art". Applicant's allegation is founded on a huge misunderstanding/misrepresentation of the Teletext "prior art". In fact, via such arguments, it appears that applicant is effectively trying to re-invent the foundation on which the Teletext "prior art" was actually built [e.g. see the arguments which begin at the top of page 354 and extend to the bottom of page 356 in the response filed on 1/28/02 in SN 08/470,571].

Specifically, standardized Teletext was based on the recognition that vacant lines occurring during the VBI of TV signal transmissions could be

²⁷ Character data was "always" transmitted in an encoded non-displayable format by "typical" Teletext transmission systems; e.g. the only exception to this "typical" configuration that the examiner is aware of is "typical" Chinese/Japanese ideograph Teletext systems being that there were simply too many Chinese/Japanese characters to encode efficiently. Graphics data, on the other hand, was "typically" encoded such that designated bits of each transmitted graphic code could be mapped by the decoder to regions of the display screen so as to generate the graphics image frame that was to be displayed. Yet, even here, a local graphics generator was still required to convert the graphics codes into displayable pixel data. Such a local graphics generator was conventionally implemented either with dedicated logic circuitry or with a "graphics generator" of the "character generator" variety [SEE: the discussion under the headings "Producing the display" and "Graphics" on page 398 of the article "CEEFAX/ORACLE: reception techniques (part I)" by Money in the 7/1975 issue of "TELEVISION"; and lines 13-21 in column 9 of US Patent #3,982,065].

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used to transmit/communicate embedded frames/"pages" of character/graphics information along with the TV programming. However, it was instantly recognized that each video line did not have sufficient bandwidth to carry an entire frame/page of the character/graphics data. Therefore, the prior art Teletext systems established Teletext packet structures by which "partial image/information" segments (e.g. such as single "rows" of character and control information) could be communicated via respective discrete packetized signals which were embedded within respective discrete television line intervals. On the receiver side of the Teletext "prior art", the partial information segments from the plurality of discrete packetized signals were recovered and re-organized back into the original frame/pages of character/graphics information in order to "locally generate" a Teletext image for display. But the clear correlation that exists between applicant's "SPAM" transmission scheme and prior art Teletext transmission schemes does not end here!

In addition to the transmission of character/graphic frames/pages, those of ordinary skill in the art quickly recognized that the prior art Teletext transmission schemes could be "extended" so as to carry other kinds of information; e.g. "Telesoftware"(i.e. computer programming), remote control signaling, etc,...

This additional information was carried using the same packetized Teletext structure previously established for the character/graphic image data. For example, Telesoftware was also broken down into "partial information" segments to be carried as "rows" of character-like data within respective Teletext packets of one or more Teletext pages (e.g. depending on the size of the Telesoftware program that was being communicated). On the receiver side, the "partial information" segments of the additional information were then recovered from the transmitted discrete packet signals and were re-organized back into its original form (e.g. the complete "Telesoftware" program was reconstructed from the discrete partial programming segments).

Given the above, it is still the examiner's position that applicant's 1987 packetized "SPAM" structure represents little more than applicant's own version of a conventional "extended" Teletext system [SEE part "A." under "Section XI" in the Office action mailed 8/27/01 in SN 08/470,571]. And again, for the reasons addressed above, the examiner continues to refute applicant's position that claim recitations directed to "discrete signals" and

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"partial information" contribute anything to avoiding applied Teletext "prior art"; i.e. applicant's allegations to the contrary represent nothing but "straw men."

6) Applicant points out that term "computer software/programming" has been defined as: "a series of instructions which controls the operation of a computer". Stretching this definition, applicant erroneously suggests that the term "computer software" encompasses: "any series of instructions which controls the operation of a computer". And finally, using this improperly stretched definition, applicant argues that each series of transmitted cuing-type codes which were described in his 1981 parent application *implicitly*²⁸ taught the transmission and/or downloading of "computer software" in view that each of these series of codes represented "instructions which controlled the operation of a computer". Applicant's argument is lame. For if one were to accept applicant's argument, then in applicant's new world:

- a) a computer mouse and computer keyboard suddenly become generators of "computer software" because they too generate series of instructions which are used to control the operation of a computer;
- b) Teletext data itself, when received by a CPU implemented decoder, suddenly becomes "computer software" because it too represents series of instructions which are used to instruct a computer as to how to generate an image for display;
- c) etc,...

Clearly, applicant's argument twists the definition of "computer software" in a way that is repugnant to its conventional use/meaning in order to obtain a 1981 effective filing date for something that he did not have in his

²⁸ Applicant is reminded that what might be "implied" by the 1981 disclosure is irrelevant to section 112-1 support issues. Section 112 support for a claimed feature is only provided if the claimed feature was actually disclosed; i.e. the feature must at least be "inherent" in the disclosure (not simply "implicit").

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possession, and/or did not disclose, until 1987; e.g. namely, the downloading of computer software.²⁹

[note: parts "15)" and "16)" of this section too]

7) While applicant has alleged that his "computer software/programming" recitations should be stretched so as to retroactively find support from things which were not "computer software/programming"³⁰ (i.e. a series of cuing-type codes/signals from his 1981 disclosure), applicant also takes the opposite approach by alleging that circuit structures which operated to process signals (i.e. specifically Teletext decoders) are not encompassed by the "signal processor" recitations of his pending amended claims.³¹ The examiner disagrees. The examiner points out that not only are Teletext decoders "signal processors" in any conventional sense of such terminology, but that Teletext decoders are in fact "signal processors" specifically within the context of applicant's own alleged invention. More to the point, the Teletext decoders of the applied prior art are like "SPAM" decoders of applicant's alleged inventions in that both decoders operated to extract and process packets of encoded information distributed to them, at least "*preferably*", via the VBI of broadcasted and/or cable casted TV programming; i.e. wherein the packets of encoded information comprised Teletext data packets in the case of prior art Teletext decoders and comprised SPAM data packets in the case of the SPAM decoders of applicants alleged invention.³² Being such, applicant's allegation that conventional Teletext decoders should somehow be excluded by the

²⁹ In the supplemental response filed 5/06/2002 in 08/470,571, applicant now submits a different version of essentially the same argument [see part "P)" in "SECTION I" of the latest Office action in 08/470,571].

³⁰ This erroneous *reading* has been used in order to erroneously allege a 1981 "priority" date for current claim recitations which are directed to the 1987 "computer software/programming" features of the instant 1987 CIP specification.

³¹ This erroneous *reading* has been used to try to distinguish which is now claimed over applied "prior art" of record.

³² In fact, for reasons which will be addressed in more detail below, the examiner maintains that the "SPAM" data packets of applicant's alleged invention represent, for all intents and purposes, little more than applicant's own version of a Teletext system in which the function of its Teletext data packets have been "extended" so as to carry more than just the normal displayable character/graphics code (e.g. "extended" to carry control signals, Telesoftware, etc,...).

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“signal processor” recitations of his pending claims seems to fall under the heading of: “NONSENSE.” ³³

8) The examiner maintains that applicant’s own “SPAM” transmission system, at least as described in the context of television distribution, constitutes little more than applicant’s own version of an “extended Teletext system” ³⁴. However, when Teletext “prior art” has been applied against applicant’s claims, applicant has become hostile to the suggestion that there is any correlation between his “SPAM” transmission system and conventional Teletext transmission systems. ³⁵ Yet, on the other hand, applicant appears to openly believe that the scope of many of his pending amended claims encompasses the “WEATHER STAR” system/receiver technology which, to the extent understood by the examiner, is in fact a Teletext based technology. ³⁶ If applicant’s claimed/disclosed “SPAM” systems/receivers encompass Teletext based systems/receivers such as

³³ NOTE:

1) that *typical* Teletext decoders sequentially performed steps of signal slicing/separation, serial-to-parallel conversion, signal storage, ASCII code to pixel data translation, etc... all which were recognized as having comprised steps of “signal processing” [the last 16 lines on page 5 of the appendix that is attached to the “PETITION FOR RULEMAKING” which was filed with the FCC on 3/26/1981 by the “United Kingdom Teletext Industry Group” which explicitly indicates Teletext decoders as having performed “signal processing”]; and

2) that such processing was even true in the unusual “ideograph” decoders of applicant’s argument [i.e. see the block labeled “Teletext signal processor” in figure 10 of the NHK article “A Teletext System for Ideographs” by Numaguchi et al.].

³⁴ The term “extended Teletext” is being used here to refer to Teletext systems which have been “extended” so as to carry other types of information beyond the normal/typical coded Teletext character/graphic information. One alleged novel feature of applicant’s SPAM packets was its ability to carry and distribute computer software. However, contrary to applicant’s allegation, packets of “extended Teletext” systems had long been used to carry and distribute computer software too. In fact, the term “Telesoftware” had been specifically coined so as to refer to the “software” that was carried by “extended Teletext systems. The point being, that SPAM and Teletext data packets are equivalent right down to there recognized ability to carry other forms of information including “Telesoftware”.

³⁵ Yet a large portion, if not the majority, of the “prior art” cited by applicant pertains to Teletext.

³⁶ SEE: the article “Landmark forms cable weather news network” which was cited by applicant [see appendix VIII attached hereto]

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the "WEATHER STAR" system/receiver technology, then how in the world can applicant possibly suggest that "SPAM" and Teletext are not correlated/analogous technologies/arts with respect to the applied prior art? Clearly there is a conflict between the two positions.

9) Applicant and applicant's originally filed 1987 disclosure both seem to have alleged that "digital television signals/programming", of the type that is recited in many of applicant's pending amended claims, was notoriously well known in the art at the time of his alleged invention. The examiner has challenged applicant's apparent allegations and has requested that applicant submit "prior art" to show such to be true. In response to the examiner's requests, applicant has submitted U.S. Patent #3,906,480 to Schwartz et al. as having evidenced the conventional "digital television signal" technology on which his disclosure and amended claims were/are allegedly based [note the last 11 lines on page 97 and lines 3-6 on page 98 of the amendment filed on 6/7/2000 in SN 08/470,571]. The examiner continues to be mystified by this submission. The examiner points out that the cited Schwartz et al. patent describes a computer display system in which a computer was used to generate, albeit digitally, *frames* of vector encoded graphic/character information which were then transferred, via a data bus, to "digital TV monitors" for display thereon. As far as the examiner can tell, the Schwartz et al. disclosure has absolutely nothing to do with the transmission of "digitized TV signals/programming" in any conventional sense of such terminology. Simply trying to figure out how the Schwartz et al. patent might be related to anything that was originally disclosed by applicant in his 1987 disclosure, much less trying to figure out how it could have been used to enable that which was originally disclosed by applicant in his 1987 disclosure, represents an insurmountable invitation to experimentation unto itself. If Schwartz et al. has been cited by applicant out of carelessness, then its submission to the Office for required review and consideration represents nothing less than an unnecessary drain on already limited PTO resources. If, on the other hand, Schwartz et al. was cited out of necessity (e.g. if it actually represents the best showing of his "digital television" recitation that applicant is/was aware of), then its very presence in the record only goes to support the examiner's position

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that which is now claimed by applicant, i.e. via the subsequently introduced "digital television" recitations, is not supported and/or enabled by applicant's originally filed 1987 disclosure.

10) Applicant has made many attempts to have the Zaboklicki reference [DE 2,914,981] removed from consideration. In many responses [e.g. the communication filed 7/13/2000 in 08/470,571], applicant has argued that the applied Zaboklicki reference should be removed from consideration simply because the teachings and descriptions provided by this applied prior art reference differ from teachings and descriptions provided by other non-applied members of its patent family (namely, GB #2,016,874). Such a position is absurd. If Zaboklicki DE 2,914,981 teaches that which applicant now claimed, then the fact that Zaboklicki GB #2,016,874 might not have provided these same teachings (even if true) is irrelevant to the fact that the claims ARE unpatentable over Zaboklicki DE 2,914,981. ³⁷

11) Within the originally filed abstract of applicant's 1981 past parent specification (i.e. note S.N. 06/317,510), the term "*programming*" was explicitly defined to mean:

"everything transmitted over television or radio intended for communication of entertainment or to instruct or inform".

[see lines 4-7 in the abstract of US patent #4,694,490]

Today this definition is in conflict with applicant's present needs (e.g. it too refutes applicant's claim to the earlier 1981 priority date ³⁸). Being such,

³⁷ It is important to note that Zaboklicki [DE 2,914,981] included an extensive "List of References" section which described the operation of the Zaboklicki system element-by-element. This section was absent from Zaboklicki [GB 2,016,874]. This additional description in Zaboklicki [DE 2,914,981] is not trivial in that it goes a long way to understanding the invention which was disclosed in the *applied* Zaboklicki prior art; e.g. namely DE 2,914,981 (not GB 2,016,874).

³⁸ The examiner notes that applicant is only entitled to the 1981 priority date for "common subject matter"; i.e. the "same" subject matter that is commonly found in both the present 1987 and the 1981 parent disclosures as originally filed. However, the term "programming" itself does not represent "common subject matter" required for priority because the definition given to it within the present 1987 disclosure is vastly different than the definition given to it via the 1981 parent. Specifically, whenever the "programming" terminology is used in a currently pending claim, section 112-1 demands that it be held to the definition that is

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applicant has argued that this explicitly stated definition should be ignored and given no weight because the “abstract”, as applicant alleges, was not *technically* part of his 1981 written description. The examiner rejects this allegation too. The examiner points out: that the originally filed abstract was certainly part of the originally filed disclosure of applicant’s 1981 parent application on which all issues must be considered/based and that the definition of “programming” that was provided by this originally filed abstract is completely consistent with the way that it was used throughout the 1981 disclosure.

12) Applicant seems willing to acknowledge that the “1987 inventions” that are described in the instant 1987 CIP specification are in at least in some ways *enhanced and improved* versions of the 1981 inventions that were described in applicant’s past 1981 parent specification.

“In fact, both [the 1981 and 1987] specifications describe the inventions disclosed in the 1981 specification, although the 1987 specification contains many enhancements and improvements.”

[see the last two lines on page 9 of applicant’s supplemental response filed 5/6/02 in SN 08/470,571]

One of the “enhancements and improvements” that was effected via the subsequent filing of instant 1987 CIP specification was a change made to the definition of the word “programming.” Whereas the past 1981 Parent specification defined the terminology as referring to Television and Radio transmissions, the instant 1987 specification “improved and enhanced” the 1981 definition of “programming” to explicitly cover “all forms of electronic transmission” now explicitly including “computer programming”, “broadcast

explicitly provided via the present 1987 disclosure. This 1987 definition is not entitled to the 1981 priority date in view that the 1981 disclosure explicitly gave the same terminology a different meaning.

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print", etc,... (e.g. additions to the radio/TV transmission of the past 1981 definition).

"everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform";

[*"programming"* as defined in the past 1981 Parent specification]

"everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, computer programming, as well as combined medium programming".

[*"programming"* as defined in the instant 1987 CIP specification]

Thus, whereas a potential infringer might have reasonably argued that any claim which derives its required section 112-1 support from the past 1981 specification cannot be fairly read on subject matter outside the Television and Radio transmission arts given the 1981 definition of "programming" (e.g. that these claims cannot be fairly read on computer software/programming transmissions), the wiggle room for such arguments has been effectively eliminated when the identically worded claims derive their required section 112-1 support from the instant 1987 CIP specification instead; i.e. being that the 1987 specification replaces the 1981 definition of "programming" with the new "improved and enhanced" 1987 definition of "programming" which has been expanded to explicitly covers "all forms of electronic transmission" including, i.e. explicitly, said "computer programming" transmissions.³⁹ Thus, the examiner asks:

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being

³⁹ The examiner maintains that the differences in the respective 1981 and 1987 definitions of "programming":

1) represent real differences in the respective "properties" of the different kinds of "signaling" that made up the respective 1987 and 1981 subject matter; and

2) are not simply different statements of "*disclosed utilities*" as applicant might try to allege in the future.

(e.g. once again, the 1987 SPAM-type signaling subject matter that is necessarily being claimed by the pending claims is explicitly inclusive of "computer software/programming" whereas the 1981 signaling subject matter was not).

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recited by a given claim using the new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and yet still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?
(The short answer to this question is: NOT!)

The point being that applicant had every right to draft a claim based on his past 1981 parent specification which contained the 1981 definition of "programming", and to have taken the position that a fair reading of the 1981 "programming" terminology, e.g. in the context of said past 1981 parent specification, encompassed "computer programming" transmission too; i.e. wherein such an "argument" would have been necessary in view that the 1981 definition of "programming" did not include "computer programming". Instead, applicant elected to draft a new CIP specification which modified the definition of "programming" to explicitly include "computer programming" thereby eliminating any question that the fair reading of "programming", in the context of the new 1987 CIP, now encompasses "computer programming". Again, the examiner asks:

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?

(E.G. Why does applicant believe that his new 1987 definition of "programming" should be entitled to the 1981 filing date of the old 1981 "programming" definition which it replaced?; Why should

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applicant's "1987 inventions", which have been re-defined by the new 1987 definition of "programming", be entitled to the 1981 filing date of "past 1981 inventions" which were defined by the past 1981 definition of "programming?"; etc,...)

13) In order to try to overcome applied prior art of record, applicant has willfully and repeatedly alleged that the Radio and Television broadcast arts represent non-analogous arts. This position is absurd and wholly unsupportable too. The examiner points out that the Television broadcast art actually evolved from the radio broadcast art because the original radio broadcast networks represented existing entities who had the program distribution resources and expertise that was easily extended and applied to TV programming; e.g. NBC, CBS, ABC all began as Radio distribution networks which evolved, quite "naturally", into Television broadcast networks too [NOTE: the last 5 lines of the first paragraph of the first column on page 811 of the article "Versatile Transmission Video Facilities at NBC New York" by Mausler which states that: "the origins of television broadcasting practice may be found in radio" (a copy of which was provided within SN 08/470,571)]. In fact, the most significant difference (i.e. if not the only "real" difference) between Radio and Television distribution networks is the difference in bandwidth of the equipment that is required to handle Radio and Television program distributions. Thus, for example, when Hetrich [Australian #74,619] stated that his disclosed "Netcue" system was applicable to either "a network of radio or television stations", one of ordinary skill in the art would have recognized that this teaching was in fact founded on the underlying understanding that Radio and Television network were in fact analogous arts. Applicant's allegations to the contrary is based on a unrealistically low level of skill in the art.

14) Throughout the prosecution of their patent portfolio, applicant has alleged that the "***simultaneous or sequential presentation***" recitation, as found in many of their pending claims, represents a "key limitation" in overcoming and/or avoiding "prior art" of record [note: lines 2-6 on page 17 of Appendix A in the response filed on 3/19/2001 in SN 08/469,078; and part "4)" under "Section VII" of the Office action mailed 8/27/01 in SN

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08/470,571]. The examiner strongly disagrees. Specifically, the examiner points out that the alternative expressions “*simultaneous or sequential*” or “*one of a simultaneous and sequential*” simply encompasses ANY AND ALL of the ways by which two types of information could ever be presented to a given audience. Specifically, any time two types of information are presented to a given audience, they must necessarily be presented to that audience either *simultaneously or sequentially* in time. The phrase “*simultaneous or sequential*” simply covers ALL of the possibilities! Thus, if one can show that a given piece of “prior art” operated to present two types of information to a given audience, then one has in fact inherently shown that the prior art meets the “*simultaneous or sequential presentation*” limitation of applicant’s claims; i.e. again, the recitation “*simultaneous or sequential*” simply covers ALL of the way that two types of data could ever be displayed to a single audience!

15) Applicant has alleged that his past 1981 Parent specification “implicitly” taught the downloading of “computer programming” (i.e. computer software).⁴⁰

“To the contrary, the 1981 definition [of “programming”] implicitly includes, and the 1987 definition [of “programming”] explicitly includes, computer programming in the definition”.

In an attempt to create support for this erroneous allegation, applicant tries to weave together a tapestry of “engineered” teachings and definitions:

A) Applicant falsely asserts that the past 1981 Parent specification literally used the term “programming” to refer to the “instruction signals” that were communicated through the TV/RADIO networks of its disclosed “1981 inventions”;

⁴⁰ Again, what might be “implied” by the 1981 disclosure is irrelevant to section 112-1 support issues. Section 112 support for a claimed feature is only provided if the claimed feature was actually disclosed; i.e. the feature must at least be “inherent” in the disclosure (not simply “implicit”).

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B) Applicant notes that the “instruction signals” of the past 1981 specification were described as comprising signals which instructed ***preprogrammed*** microcomputers to perform given tasks.

C) Applicant cites an outside *Dictionary* definition of the term “program” to show that the term “program” was conventionally used to refer to “computer programming/software”; and

D) Finally, applicant argues that when one combines the above “engineered” teachings from his past 1981 Parent specification together, based on the cited *Dictionary* definition of “program”, one “implicitly” arrives at the cited *Dictionary* definition of “program.”

However, for a variety of reasons, the tapestry which applicant attempts to weave falls apart at the slightest touch:

A) When one actually looks at the way in which the 1981 “programming” terminology was coined and used throughout applicant’s past 1981 Parent specification, i.e. the context in which it actually appears, one finds that the 1981 “programming” terminology unquestionably referred to signaling which represented scheduled TV/Radio shows (and not to “computer software” as applicant now wishfully alleges). In this regard, one finds that applicant’s past 1981 Parent specification distinctly distinguished the 1981 “instruct signals” from the 1981 “programming” into which said 1981 “instruct signals” were embedded. Specifically, the past 1981 parent specification leaves absolutely no doubt that said 1981 “instruct and information signals” constituted ancillary/auxiliary signaling that was “associated” with, and embedded within, respective TV/Radio “programming”:

“One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the operation of a television studio automatically through the use of instructions and information signals embedded in

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programming either supplied from a remote source or sources or prerecorded” (emphasis added)

[lines 32-37 of column 3]⁴¹

“Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72.” (emphasis added)

[lines 3-7 of column 11]

“The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct to remove signals from the programing as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct to add signals to programming as required”

[lines 36-42 of column 12]

“One particular advantage of these methods for monitoring programming is that, by locating the identifier signals in the audio and/or video and/or other parts of the programing that are conventionally recorded by, for example, conventional video recorders, ...”

[lines 25-29 of column 16]

“Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment” (emphasis added)

[Lines 34-38 of column 17]

⁴¹ Citations have been obtained from US Patent #4,694,490.

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“Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions” (emphasis added)

[lines 39-41 of column 17]

“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission.... These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...” (emphasis added)

[lines 42-49 of column 19]

“At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission” (emphasis added)

[lines 60-63 of column 19]

Given the above, it still seems ridiculous for applicant to suggest that the term “programming”, e.g. in the context of the past 1981 specification”, referred to “computer software” (or even that it referred to applicant’s 1981 “instruct and information signals”).

B) It is also quite clear from applicant’s 1981 past parent specification that the “microcomputers” on the receiver side of the disclosed 1981 inventions were “**preprogrammed**” with the “computer programming/software” which told then *how to respond* to detected “instruct signals” that were embedded within received TV/Radio “programming.” More specifically, it seems quite apparent that each of the 1981 “instruct signals” of applicant’s 1981 inventions represented typical cuing-type signals/commands which instructed/triggered “**preprogrammed**” microcomputers to execute respective portions of preprogrammed software in order to perform predefined task/operation (e.g. the 1981 “instruct signals” told the 1981 microcomputers “to generate the overlay” whereas the pre-

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loaded 1981 computer programming/software told said 1981 microcomputers "how to generate the overlay that was to be generated").⁴²

"Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays..."
(emphasis added)

[lines 42-49 of column 19]

Clearly, contrary to applicant's erroneous allegations, there is no teaching in applicant's past 1981 specification indicates that applicant's 1981 "instruct signals" represented "computer software/programming" in any conventional sense of such terminology.

C) The past 1981 parent specification does not offer/provide a signaling mechanism and/or structure which would have been capable of handling the large continuous sequence of data bytes required to push "computer software" through TV and/or Radio networks. Such a signaling mechanism and structure was not provided until "SPAM" packeting was introduced via applicant's subsequently filed instant 1987 CIP specification. Thus, applicant's past 1981 parent specification was not enabling of the alleged "computer programming/software" feature (i.e. the alleged "computer programming/software" feature that the past 1981 specification did not even describe/disclose).

⁴² This being even more apparent when one reads the teaching of applicant's past 1981 Parent specification in light of the "enhanced and improved" teachings of applicant's 1987 CIP specification (i.e. a 1987 specification in which cuing-type signaling was enhanced/improved by the added ability of the 1987 systems to re-program downstream devices via downloaded computer software).

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16) On page 150 of the amendment filed 1/28/2002 in 08/470,571, applicant states:

“The 1981 specification states:

It is the object of this invention to unlock this potential by the development of means and methods which permit programming to communicate with equipment that is external to television receivers and radio receivers, particularly computers and computer peripherals such as printers

1981 Spec., Col. 1, ll.36-41

Thus applicants’ 1981 specification makes it clear that ‘programming’ is not just TV and Radio shows- it can also include instructions, codes, and signals that are communicated to and control e.g., computers and computer peripherals. These instructions, codes, and signals clearly fall within the definition of programming and to find otherwise is to conveniently and purposefully overlook the entire purpose of the invention.” (emphasis added)

The examiner disagrees with applicant’s analysis as to the meaning of the cited excerpt. In reading the 1981 Specification, it seems that “**the entire purpose**”⁴³ to which applicant alludes was the ability to provide multimedia presentations in which TV or Radio “programming” was be displayed along with another supplemental media presentation; wherein the content of the supplemental media presentation was related to the content TV and Radio “programming” thereby *enhancing* the content of the displayed TV and Radio “programming”. To achieve this goal, ancillary “instruct signals” and/or other ancillary “information signals” were “associated” with, and “embedded” within, the TV or Radio “programming.”

⁴³ The examiner notes that applicant’s 1981 inventions appear to serve many purposes. Therefor, the examiner does not believe that “the invention” of applicant’s 1981 specification has one “entire purpose” as is now alleged by applicant; i.e. if it does have one “entire purpose”, then it is not clear to the examiner what that “entire purpose” actually is.

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These embedded "instruct and information signals" allowed received TV and Radio *programming* "to communicate" with equipment that was external to the TV and Radio receivers in order to produce the supplemental media presentation. Specifically, the associated "instruct and information signals", which were embedded within the received Radio or TV "programming", were themselves transferred to the external equipment thereby causing the external equipment to produce said supplemental media presentations. Being such, it is still crystal clear to the examiner that the 1981 "programming" terminology was used in a conventional sense by the 1981 specification so as to refer to TV and Radio signaling which represented scheduled TV and Radio shows. To suggest otherwise is to conveniently and purposefully ignore the fact that applicant's 1981 specification clearly distinguished the associated "instruct and information signals" as being separate/distinct entities with respect to the "programming" (i.e. the radio/TV shows) into which these associated "instruct and information signals" were embedded:

"One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the operation of a television studio automatically through the use of **instructions and information signals embedded in programing** either supplied from a remote source or sources or prerecorded" (emphasis added)
[lines 32-37 of column 3]⁴⁴

"Signal processor, 71, has means, described above, **to identify and separate the instruction and information signals from their associated programing** and pass them, along with information identifying the channel source of each signal, externally to code reader, 72." (emphasis added)
[lines 3-7 of column 11]

"The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct **to remove signals from the programing** as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct **to add signals to programing as required**" (emphasis added)
[lines 36-42 of column 12]

"One particular advantage of these methods for monitoring programming is that, by locating the **identifier signals in the audio and/or video and/or other parts of the programing** that are conventionally recorded by, for example, conventional video recorders, ..." (emphasis added)
[lines 25-29 of column 16]

⁴⁴ Citations have been obtained from US Patent #4,694,490.

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"Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment" (emphasis added)
[Lines 34-38 of column 17]

"Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions" (emphasis added)
[lines 39-41 of column 17]

"Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.... These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays..." (emphasis added)
[lines 42-49 of column 19]

"At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission" (emphasis added)
[lines 60-63 of column 19]

17) Applicant clearly failed to carry his original 1981 disclosure forward into the instant 1987 disclosure ⁴⁵. Because of this, applicant has forfeited his right to now claim any subject matter that was set forth in the disclosure of his originally filed 1981 parent application, but was not carried forward into the disclosure of his originally filed 1987 parent application ⁴⁶. Thus, APPLICANT IS CLEARLY WRONG when he alleges that he can secure a 1981 priority date for that which is now claimed by showing "possession" of that which is now claimed via the original disclosure of his 1981 parent application (i.e. NOT for the subject matter that was left behind!). Specifically, not only must applicant show that he possessed the subject

⁴⁵ The examiner notes that applicant failed to incorporate the original disclosure from his 1981 parent application into the original disclosure of his 1987 parent; i.e. the 1981 disclosure was neither formally copied into the 1987 disclosure nor was the 1981 disclosure "incorporated by reference" into the 1987 disclosure. The original 1987 disclosure simply replaced the 1981 disclosure as "THE INSTANT DISCLOSURE" from which all section 112 issues must be analyzed.

⁴⁶ As evidenced by testimony given in ITC investigation #337-TA-392, even applicant and/or his counsel seemed unsure as to exactly what subject matter from applicant's 1981 parent ("if any") made it into applicant's 1987 disclosure.

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matter that is now claimed with respect to the original 1981 disclosure but, more importantly ⁴⁷, applicant must first show possession of the same claimed subject matter with respect to the instant 1987 disclosure. Stated another way, to secure priority, applicant must be able to show that he did not forfeit his right to claim the subject matter possessed in his originally filed 1981 parent application by showing, *independently* ⁴⁸, that he possessed this same subject matter via the originally filed disclosure of his present application too (i.e. with 1987 disclosure).

18) Applicant is only entitled to claim subject matter which was set forth within the originally filed 1987 disclosure of his present application in accordance with ALL of the requirements of section 112-1. Specifically, the examiner refutes applicant's allegations that the original disclosure of his 1981 parent application can be used in place of the instant 1987 disclosure to meet one or more of the section 112-1 requirements (namely, to establish "possession" of that which is now claimed). It is only after proper section 112 support (i.e. including "possession") has first been established for the pending claims from the disclosure of the present application (the 1987 disclosure), that there is even a need to consider applicant's 1981 parent application at all. Simply put, if the pending claims are not supported under section 112-1 by applicant's present disclosure as originally filed, then the pending claims themselves fail to comply with the

⁴⁷ "More important" in the sense that applicant is prohibited from now claiming anything that is not fully supported in accordance with all of the requirements of section 112-1 by the present disclosure (e.g. the disclosure that was originally filed by applicant in 1987). Specifically, the present claims fall under section 112-1 if they are not fully supported by the present 1987 disclosure even if they were, by some remote chance, fully supported by the disclosure of the earlier 1981 parent.

⁴⁸ If applicant had formally/properly incorporated the written description from his 1981 parent application into his originally filed 1987 disclosure, then there would be no need for these "independent" showings; i.e. applicant could have established "possession" via the originally filed disclosure of his 1981 application alone. It is only because applicant failed to formally/properly incorporate the written description from his 1981 parent into his originally filed 1987 disclosure, that such "independent" showings of "possession" are needed; i.e. because the actions taken by applicant have in fact caused the forfeiture of his right to now claim that subject matter from his 1981 disclosure which was not carried forward into the 1987 application.

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requirements of section 112-1 and no further questions need be asked ⁴⁹. Again, because applicant failed to formally/properly incorporate his 1981 disclosure into his 1987 disclosure, applicant is prohibited from relying on his 1981 disclosure to supplement his present 1987 disclosure (i.e. at least as far as complying with the requirements of section 112-1 is concerned). Stated another way, because applicant's 1981 parent application was never formally incorporated into applicant's present 1987 disclosure, it does not constitute part of applicant's 1987 disclosure, i.e. the *instant disclosure*, from which all section 112-1 support for the currently pending amended claims must be derived.

19) As was noted above, applicant does not believe that "common subject matter" is a requirement for priority under section 120.

"[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner's focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim." (emphasis added)

[Page 141 of applicant's response filed on 1/28/2002 in application S.N. 08/470,571]

"Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of 'common subject matter.'"

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

⁴⁹ At least with respect to the issue of "adequate written description".

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Being such, applicant does not even pretend that the subject matter that is now being claimed in his many applications represents "common subject matter" between the instant 1987 CIP specification and the past 1981 parent specification. Instead, applicant is happy to allege the benefit of section 120 priority for that which is claimed based only on alleged "correlated subject matter" between his 1987 and 1981 specifications; e.g.

NOTE:

- a) That Appendix C of applicant's response filed 6/7/2000 sets forth alleged "correlations" between respective 1981 and 1987 disclosures; and
- b) That the claim by claim showing of alleged 1981 and 1987 section 112 claim support in Appendix A of applicant's response filed 6/7/2000 seem to regurgitate many of the alleged "correlations".

The examiner, on the other hand, believes that "common subject matter" is in fact a requirement of section 120. Thus, the examiner maintains that applicant's allegations pertaining to the existence of "correlated subject matter" are irrelevant to the issue of section 120 priority because "common subject matter", not "correlated subject matter", is required under section 120.⁵⁰

An extreme example of just how far applicant has been willing to distort section 120 in an effort to obtain the 1981 priority date for ones of the pending amended claims can be found in the claim chart for claim 123 within APPENDIX A of applicant's response filed 6/7/2000 in SN 08/470,571. In this claim chart, applicant alleges that the recitations of claim 123 find section 112-1 support via the "Super Discount Supermarkets" embodiment of the instant 1987 disclosure while alleging that this claimed 1987 "Super Discount Supermarkets" embodiment is entitled to the 1981 filing date of the parent application based on the 1981 "Wall Street Week" embodiment. The examiner disagrees. Specifically, the examiner maintains that the 1987 "Super Discount Supermarkets" embodiment and the 1981 "Wall Street Week" embodiment do not

⁵⁰ See part "A)" of "SECTION I".

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constitute “common subject matter” and therefore the claimed 1987 “Super Discount Supermarkets” embodiment is not entitled to the 1981 filing date of the 1981 “Wall Street Week” embodiment as alleged.

20) In lines 3-7 on page 11 of the supplemental response filed 5/06/2002 in SN 08/470,571, applicant states:

“the starting point for determining whether an applicant is entitled to priority under section 120 is what is being claimed. Without identifying precisely what is being claimed, it is impossible to seriously undertake an analysis of whether sufficient support exists in both applications thus entitling applicants to a 1981 priority date”⁵¹

The examiner was a bit surprised that applicant raised this issue after all of the section 112-1 requests which have been made by the Office throughout the present prosecution in hopes of getting applicant's clarification as to *precisely what it is* that applicant claims. In fact, the Office continues to struggle in its efforts to make such determinations for the 10,000 or so pending amended claims. In the past, when applicant has been asked to identify “*precisely what is being claimed*”, applicant has declined⁵² to provide such showings instead opting to take the positions:

A) That it is the examiner's job, not applicant's, to read and understand the 557 pages of applicant's current 1987 CIP specification in order to determine “precisely what it is being claimed” via applicant's 10,000 or so pending claims; and

⁵¹ The examiner agrees with applicant's position noting that, without being able to identify precisely what it is that is being claimed, it is impossible to seriously undertake many other examining related activities too .

⁵² A notable exception being the most helpful claim charts of alleged “dual” section 112 support which applicant has, only on a few occasions, been willing to kindly provide [e.g. APPENDIX A in the amendment filed 6/7/2000 in 08/470,571].

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B) That at least some of the limitations of applicant's 10,000 or so pending claims are actually directed to subject matter that is not described within in the instant 1987 CIP specification.

"the [examiner's] assumption that 'all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure' is mistaken and wholly unsupported."⁵³

[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

Hence applicant does not wish to cite, or indeed is unable to cite, section 112-1 support from the instant CIP disclosure for these limitations [e.g. often times out of an expressed fear that a court, at some later date, might actually hold the scope/meaning of these limitations as being directed to subject matter that was actually disclosed within the instant 1987 CIP specification].

In regard to the section 112-1 issue that has now been raised by applicant, the following positions continue to be taken by the present examiner:

A) It has always been a desire of the Office to determine "precisely what it is" that applicant now claims. Being that it still remains so unclear as to "precisely what it is" that applicant now claims, clarification on the part of applicant is once again formally requested for the 10,000 or so pending claims. For the record, the current examiner has found applicant's claim charts of alleged "dual" section 112-1 support to be the most helpful form of aid that applicant has provided to date because it at least attempts to match each claimed limitation to the specific teachings in the specification(s) that they are allegedly directed;⁵⁴ and

⁵³ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant 1987 specification. This is not to say that the resulting scope of the pending claim is limited only to that of the 1987 specification to which it must necessarily be directed.

⁵⁴ The process of showing a limitation-to-disclosure match for each limitation of each claim should be an easy task for applicant, if not a trivial one, being that the currently pending claims must be "*clearly anticipated*" by the teachings of applicant's instant disclosure.

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B) The examiner continues to adopt the positions expressed by Judge Luckern at the ITC:

1) “that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] is difficult to understand, as it is dealing with many possible systems”;

2) “that despite complainant’s [i.e. the current applicant’s] attempts to point to the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] as illustrative of some claim elements, said specification has not been helpful in connecting individual claim language to distinct statements in the specification of the ‘277 patent that is supposed to provide an explanation of the claimed systems in issue”;

3) “that complainant’s [i.e. the current applicant’s] assertions in many instances of where support in the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] can be found for claimed elements ‘reads like the directions to a treasure hunt. There’s a piece here, there’s a piece there, it’s in there somewhere.’”; and

4) “ that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] and the claims in issue ‘are like ships passing in the night in the same ocean, but not necessarily sailing in the same direction.’”
[SEE: 1997 ITC Lexis 307, *258 (part I of II)]

Once again, the examiner hereby requests applicant’s help in determining “precisely what it is” that applicant now claims.

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21) The examiner notes that the “SPAM” technology, on which the “more sophisticated” systems of applicant’s present 1987 disclosure are based, is vastly different from the “cuing-type signal” technology on which the “primitive” systems of applicant’s 1981 parent application were based; e.g. the ability of SPAM to carry and distribute “software” being but just one of the more notable differences. Clearly, the “more sophisticated” 1987 alleged inventions that are now *necessarily being claimed* are not entitled to the 1981 filing date of their 1981 “primitive” ancestors; i.e. applicant is not allowed to transport his “more sophisticated” 1987 alleged inventions back in time to the 1981 filing date of his different, albeit sometimes “correlated”, “primitive” 1981 alleged inventions.

22) The issues cited above illustrate a further dilemma that the examiners have faced when trying to read and understand that which is now being claimed by applicant. Specifically, terminology which might seem definite when one looks to the instant 1987 disclosure alone, becomes confusing and indefinite when read in light of applicant’s responses; responses in which applicant has applied newer 1987 interpretations/definitions to the claims in order to establish section 112-1 support and has applied older and different 1981 interpretations/definitions to the same claims in order to obtain the 1981 priority date for the recitations (this approach is evident throughout appendix A of applicant’s last response). Thus, at times, it seems to be the record itself that has, or that has at least contributed to, making the meaning and scope of the claims’ recitations so unclear. It must also be noted that the claim recitations themselves are often contorted in the attempt to craft them to read independently on different teachings from the two disclosures⁵⁵. Not only does this process results

⁵⁵ For example, applicant’s claims now recite “downloadable processor instructions” which has no antecedent basis in either of the originally filed 1987 and 1981 disclosures. Yet it appears that this recitation could, quite properly, be read on the originally described “program instruction sets” (e.g. downloaded software) of applicant’s instant 1987 disclosure. However, when one looks at appendix A of applicant’s last response, one finds that applicant has attempted to read the recitation not on the originally described “program instruction sets” of the instant disclosure, but instead on respective (and different) commands/instructions from the 1981 and 1987 disclosures both of which functioned only to trigger actions/operations on the receiver side. Applicant resorts to this interpretation apparently out of recognition that the “program instruction sets”/software of the instant 1987 disclosure has no equivalent in the 1981 disclosure. What results from this process is a claim which looks like it is literally directed to the downloading of software that was described only in the 1987 disclosure, and yet has been afforded the 1981 effective filing of a parent application in which such a feature was not disclosed (i.e. effectively transporting the 1987 “downloading of software” feature back in time to the

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in claim limitations that are difficult to read in that they do not quite fit teachings from either disclosure, but more importantly, the effort involved in this process is wasted effort because the subject matter being claimed/referenced in the two disclosures is not "common subject matter"; e.g. the claims are not entitled to the 1981 filing date even if it could be shown that they can be read on respective (but different) subject matter from the two disclosure (a situation that is also quite evident from appendix A of applicant's last response).

Even so, given a record in which applicant continues to argue that his pending claims are entitled to the 1981 priority date because they can be read in different ways on the 1981 and 1987 disclosures, a situation is created in which the "broadest reasonable meaning" of a claim's limitations takes on one meaning when defined by the file history itself (e.g. when based on applicant's attempt to read each claims' limitations, improperly, onto two completely different disclosures), and takes on a different meaning when defined, properly, from the originally filed 1987 disclosure by itself. Should the examiner apply the "prior art" according to the interpretations afforded by applicant's 1987 disclosure alone (as is proper), or should the examiner apply the "prior art" according to the interpretations created by applicant via his improper reliance on different subject matter from the different 1981 and 1987 specifications? No matter how you cut it, the result is confusion!

23) The following position taken by Judge Rich demonstrates that "continuity of disclosure", needed to establish the benefit of priority under section 120, requires continuity of "common subject matter" in a form that meets all of the requirements of section 112-1; e.g. even continuity of "best mode".

"It must be understood that the introduction of a new best mode disclosure would constitute the injection of 'new matter' into the application and automatically deprive the applicant of the benefit of the earlier filing date of the

1981 date of the parent application in which it was not disclosed).

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parent or original application for any claim whose validity rests on the new best mode disclosure”.

TRANSCO [38 F.3d 551; 32 U.S.P.Q.2D (BNA) 1077]

24) At times, applicant seems to be of the opinion that *only* the “enablement” requirement of section 112-1 applies to the issue of “continuity”. At other times, applicant seems to be of the opinion that *only* the “description” requirement of section 112-1 applies to the issue of “continuity”. On its face, one of these two positions must be wrong (i.e. they are mutually exclusive). In reality, both positions are wrong. As evidenced above, *ALL* of the requirements under section 112-1 apply to the issue of “continuity” (e.g. even “best mode”). Being such, applicant is only entitled to the benefit of an earlier filing date for claims that are directed to “common subject matter” for which “continuity” has been maintained between the present and the earlier filed application. “Continuity of common subject matter” exists between applications only when there is:

A) Continuity of “written description” between applications for the subject matter being claimed (as defined under section 112-1);

B) Continuity of “enablement” between applications for the subject matter being claimed (as defined under section 112-1); *and*

C) Continuity of “best mode” between applications for the subject matter being claimed (as defined under section 112-1).

[note sections 14 and 15 above]

Being such, none of applicant’s currently pending amended claims are entitled to the priority date of applicant’s 1981 parent application in that the claims are not directed to “subject matter”⁵⁶ for which there is has been:

⁵⁶ The “subject matter” currently being claimed corresponds to the metes and bounds of the pending amended claims as defined by the instant 1987 CIP specification from which they depend. Obviously, for reasons that have been addressed throughout the record, this 1987 “subject matter” currently being claimed is different from the 1981 “subject matter” which would have been claimed had the metes and bound of these same claims been defined by the past 1981 parent specification instead; i.e. evidencing the lack of continuity in “common subject matter” with respect to that which is claimed.

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- a) the required continuity of "written description" between applications;
- b) the required continuity of "enablement" between applications;
and
- c) the required continuity of "best mode" between applications. ⁵⁷

25) It is understood that CIP practice allows an applicant to file a new application containing additional/new subject matter while preserving the applicant's right to claim (and the right to the earlier filing date for) subject matter which was previously disclosed in the parent application. But an applicant's right to claim subject matter from the parent application is only preserved for that subject matter of the parent application which has actually been carried forward (e.g. *incorporated*) into the disclosure of the CIP. Any and all subject matter from the parent application that is not carried forward into the disclosure of the CIP cannot be legally claimed within said CIP; i.e. the right to claim subject matter that is left behind is lost/forfeited with respect to said CIP application. To prevent such a loss/forfeiture, it is common for an applicant to draft the disclosure of his CIP application so that it literally incorporates the entire disclosure of the

⁵⁷ e.g. applicant has argued that he was under no obligation to update his earlier filed disclosure with his "new best mode" when originally filed the present disclosure. The examiner strongly agrees. However, to maintain continuity between applications, applicant was required to at least carry forward the "old best mode" from of his earlier filed application into his originally filed present disclosure. Applicant failed to do this and therefor has not maintained "continuity of disclosure". For example, as was noted in part "13" of this paragraph, the "old best mode" of applicant's 1981 parent application was based exclusively on primitive 1981 cuing technology while the "new best mode" of applicant's present application was based exclusively on the more sophisticated 1987 "SPAM" technology (i.e. extended Teletext technology). In view that the primitive 1981 cuing technology was not carried forward into the present 1987 application, e.g. applicant's new 1987 disclosure literally replaced applicant's earlier filed 1981 disclosure in its entirety, the "old best mode" was in fact left behind (i.e. it had to be!). For this reason alone, the pending amended claims are not entitled to the 1981 priority date of applicant's parent application. Again, the pending amended claims are necessarily directed to the systems/methods of applicant's present 1987 disclosure which is based on the more sophisticated "SPAM" technology". Accepting applicant's claim to a 1981 priority date for these pending amended claims would allow applicant to transport claims which are necessarily directed to the 1987 disclosure/technology back in time to the 1981 date of the earlier disclosure/technology. Using this scheme, applicant would be able to improperly transport his new 1987 "best mode"/technology back in time to the 1981 date of his "old best mode"/technology.

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parent application, e.g. either physically or “by reference”, thereby literally carrying forward all of the subject matter from the parent application into the CIP application and in doing so:

A) Preserving applicant’s right to claim any/all of the subject matter from the parent within said CIP application; and

B) Preserving applicant’s right to the filing date of the parent application for any/all claims which are directed to the subject matter of the parent application that has been carried forward into the CIP application.

In contrast to the common CIP practice described above, when filing his 1987 CIP disclosure, the present applicant elected to draft an entirely new specification and elected not to formally incorporate the disclosure from his 1981 parent application in its entirety. In fact, when filing his 1987 CIP disclosure, applicant elected to draft the entirely new specification in a way which makes it difficult to impossible to determine if any of the subject matter from his 1981 parent was carried forward into the disclosure of his CIP⁵⁸. Today, faced with the fact that subject matter which was not carried forward (i.e. *incorporated*) into the present disclosure has been lost/forfeited, applicant takes a leap of faith by suggesting that all of the subject matter from his 1981 parent application somehow/miraculously found its way into the new disclosure of his 1987 CIP. Clearly, this is not true. In fact, when one studies the two disclosures in detail, one actually finds that little to none of the subject matter from the 1981 parent made it into the 1987 CIP disclosure in a form that constitutes “common subject matter”. For example, even the subject matter from the two disclosures which looks similar at first glance, is based on vastly different transmission technologies, different scopes/meaning/interpretations, and on a new “best mode” [e.g. note Appendix II of the Office action mailed 8/27/01 in SN 08/470,571]. Being such, it does not appear that any of applicant’s currently pending amended claims are entitled to the 1981 date of applicant’s parent application.

⁵⁸ For example: the 1987 CIP appears to have injected a “new best mode disclosure” by literally replacing the 1981 inventions with new 1987 inventions which, by itself, refutes all claims of priority to the 1981 filing date.

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26) In the past, applicant seems to have suggested that even if one were to find that applicant's 1981 disclosure had not been carried forward into applicant's later filed 1987 disclosure, one/applicant could still rely on said 1981 disclosure to provide an understanding of the later filed 1987 disclosure with respect to issues under section 112. The examiner notes that only "prior art" can be used for such purposes. Therefor applicant's 1981 can only be used to clarify/supplement his 1987 disclosure if it is found to be "prior art" with respect to the 1987 disclosure. But if the 1981 disclosure is "prior art" for applicant's suggested purpose (i.e. for the purpose of understanding the later filed 1987 disclosure), then it must be "prior art" for issues under sections 102 and 103 too. Thus, for applicant to suggest that his 1981 disclosure be used as "prior art" for the purpose of understanding his 1987 disclosure seems to put applicant, at least potentially, on a very slippery slope; i.e. because if applicant's position were ever *legally* accepted, then applicant's 1981 disclosure would *legally* become "prior art" against the 1987 disclosure for sections 102 and 103 issues too.⁵⁹

27) The examiner notes that many of applicant's pending claims recite the following receiving station structures: a) a receiver; b) a signal detector; c) a processor; and d) an output device. Appendix A of the response filed on 6/7/2000 in SN 08/470,571 shows that:

- a) the recited "receiver" refers to nothing more than --a TV tuner--;
- b) the recited "signal detector" refers to nothing more than a decoder 203 which extracts and error corrects embedded information from the VBI of TV programming;
- c) the recited "processor" refers to nothing more than microcomputer 205; and

⁵⁹ For the record: applicant's 1981 disclosure does not constitute "prior art" with respect to applicant's 1987 disclosure and therefor cannot serve as "prior art" for any purposes. Thus, applicant's 1981 disclosure cannot be used to supplement ones understanding of applicant's 1987 disclosure, with respect to issues under section 112-1, as seems to have been improperly suggested by applicant in the past. Specifically, with respect to section 112 issues, applicant's 1987 disclosure *stands alone*.

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d) the recited "output device" refers to nothing more than a "TV monitor".

The examiner maintains that all of these recited structures are found within a conventional CPU/MP/computer implemented Teletext receivers. For example, note:

- a) the TV tuning element (2);
- b) the extracting and decoding circuitry 8 and 11;
- c) the processing element (13); and
- d) the TV monitor/display (6),
of BETTS [GB 1,556,366].

Such further highlights the direct correlations that exists between the "SPAM" distribution system of applicant's alleged invention and the "Teletext" distribution systems of the "prior art". Again, the examiner believes that applicant's "SPAM" is, for all intents and purposes, synonymous with conventional "Extended Teletext" [note part "5)" of this section];

28) Applicant's originally filed instant disclosure clearly taught away from the "interactive" ultimate receiver station configuration which has been claimed during the present prosecution [note claim 56 as presented in the amendment filed 6/7/2000 and 7/13/2000 in 08/470,571]. Namely, as originally described, one of the key advantages that was allegedly offered by applicant's alleged inventions was the fact that the "ultimate receiver stations" produced their respective personalized audio/video presentation "automatically" and without any manual input from the viewer; e.g. whereby the complex processing that was involved within the system remained hidden from, and transparent to, the viewer/user; SEE:

A) lines 27-34 on page 11 of applicant's instant disclosure as originally filed;

B) lines 18-20 on page 91 of applicant's instant disclosure as originally filed;

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C) lines 13-34 on page 427 of applicant's instant disclosure as originally filed;

D) etc,...

Despite this original teaching, applicant has subsequently attempted to introduce pending amended claims into the record which, according to applicant's own allegation (see the support for claim 56 as was set forth in APPENDIX A of the amendment filed on 6/7/2000 in SN 08/470,571), recite an "interactive" implementation of the originally disclosed non-interactive "ultimate receiver stations". The section 112-1 problem is immediately apparent [also note the arguments set forth in latest Office action of SN 08/470,571].

29) As originally described, it appears that the "ultimate receiver stations" of applicant's alleged invention produced the combined image of applicant's figure 1C by (apparently) additively mixing the images of figures 1A and 1B in their entirety; i.e. this fact seems to explain why the "line" of figure 1A had to be produced "on a background color that is transparent when overlaid on a separate video image" as was described in applicant's originally filed disclosure [see lines 9-14 on page 25 of applicant's instant disclosure]. Despite this original teaching, applicant now attempts to introduce claims which recite a process in which the respective images are now combined in less than their entirety and/or in which one portion of one image is "replaced" by a portion of another. The section 112-1 problem is immediately apparent [note the latest Office action in SN 08/470,571].

30) In the first two lines under the heading "*a. Independent Claim 56 and Dependent Claims Thereto*" on page 287 of the response filed 1/28/2002 in SN 08/470,571, applicant alleges that the publication date of the applied Gunn et al article was never established by the Office. This allegation is untrue. The following is noted:

a) This Gunn et al. article was originally submitted by applicant for consideration within voluminous IDS citations. However, as with

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many of these citations, applicant never provided the Office with information regarding the publication date of the article;

b) The Gunn et al. article has been applied by the Office against many of applicant's pending claims, and while applicant never provided the Office with the article's publication date, the Office was able to establish the date in question and notified applicant of it accordingly [note: the PTO- 892 of paper #2 in the present 08/470,571 record; the PTO-892 of paper #20 in SN 08/447,502; etc,...];

c) Again, the publication date for this Gunn et al. article, e.g. an article that was submitted by applicant for consideration against the pending amended claims, is March 26-28 of 1980. This date is, by any standard, valid "prior art" against all of applicant's pending claims.

31) etc,...

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SECTION V: Section 112-2 issues:

Claims 56-74, 76, 80-82, 84-87, 89-91, 116-118, 120-122, 162-170, and 179-182 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following is noted:

1) In claim 58, line 2, "said step of programming" does not have clear antecedent basis and is indefinite because claim 57 includes recitations directed to five different steps of programming; e.g. one for "originating", one for "communicating", one for "receiving", one for "processing", and one for "displaying". It is not clear to which one or ones of the five "said step of programming" refers. Clarification is needed.

2) During the present prosecution, applicant erroneously characterized Teletext transmission as being comprised of data that is "directly displayable" by the receiver side of a TV network; e.g. data that can be provided directly to the display screen without the need of "signal processing". Hence, applicant also alleged, e.g. erroneously, that *standard* Teletext decoders did not constitute "signal processors". Based on this misunderstanding/misrepresentation of the Teletext art, applicant argued that the "locally generated image" recitations of his pending claims excluded video data transmissions that were "directly displayable" (e.g. such as broadcasted TV signals and, based on applicant's misrepresentations/misunderstanding, Teletext data too). To support this position, applicant argued that the meaning of the "locally generated image" recitation of his pending claims were derived (under section 112-1) from the graphic image overlay of applicant's figure 1A and by the fact that this graphic image overlay was "locally generated" at the receiver station by a "signal processor" which processed received information which was not, itself, "directly displayable."

Now, in an attempt to overcome outstanding section 112-1 issues (e.g. as they pertain to claim 179), applicant takes the position that the meaning of "locally generated image" recitation encompasses the combined image of applicant's figure 1C and, thus, is now inclusive of the process in which the

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"directly displayable" video image of figure 1B is processed and mixed with the overlay of figure 1A so as to "locally generate" the combined image of figure 1C. Applicant's new argument/allegation as to the meaning of the "locally generated" recitations is in conflict with applicant's previous arguments and allegations concerning the definition that should be held to this terminology. Specifically, in order to avoid section 112-1 problems, it now appears that applicant wishes to expand the previously alleged/argued meaning of his "locally generated image" recitations so as to encompass subject matter that applicant had previously alleged/argued was excluded by these same "locally generated image" recitations. In light of the *new* alleged/argued definition, the "locally generated image" recitations of applicant's pending claims appear to encompass any and all video signals simply by the fact that any and all video signals must be "locally processed" by the receiver side display circuitry in order to be converted into the "locally generated" image that is actually displayed and viewed on the display screen.

Given the above, the examiner maintains that the "locally generated" image recitation of applicant's pending claims is confusing and appears to have been rendered "indefinite" by the conflicts in applicant's latest and previously submitted arguments concerning its meaning [e.g. those which have now been submitted with respect to claim 179 in the amendment filed in SN 08/470,571 on 1/28/2002]. Appropriate clarification is now needed with respect the "real" meaning of "locally generated" recitations given the outstanding conflicts in applicant's own arguments. Said "locally generated" terminology occurs, for example, in independent claims: 56 (e.g. line 4); 80 (e.g. line 7); 84 (e.g. lines 14 and 15); 116 (e.g. line 5); 162 (e.g. line 13); 167 (e.g. line 20); and 179; and all dependent claims that depend therefrom.

3) The use of the "graphic image" terminology within claim 179 is both confusing and indefinite. For example, lines 8-11 of this claim indicate that a "series of images" is displayed wherein said "series of images" includes a "first full screen video graphic image" that fills the entire surface area of the display screen when the series of images is displayed. In contrast, lines 4-5 of this claim indicate that each image of said same "series of images" contains "at least one graphic image". Specifically:

- a) It is not understood how said "at least one graphic images" of each image of said series of images relates to the "first completed full-screen graphics image" that is included within said same series of images;

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b) It is not clear to what disclosed “graphic image” of the instant disclosure the “at least one graphic image” recitation of lines 4 and 5 refers; and

c) It is not clear to what disclosed “graphic image” of the instant disclosure the “first completed full-screen graphics image” recitation of lines 8-11 refers.

Clarification is needed.

4) In claim 84, lines 16 and 17, “said organizing of said at least one processor instruction” has no antecedent basis and is indefinite. Note that in lines 12 and 13 of claim 84, it was the “information” of the first discrete signal that was “organized” with the “information” of the second discrete signal by the “at least one receiver station” of line 5; e.g. not “said at least one processor instruction” as recited in lines 16 and 17. Similar clarification is needed for the “prior to said organizing of said identifier” in lines 20 and 21 of claim 123 and “prior to said organizing of said code” in lines 15 and 16 of claim 162.

5) In claim 123, line 13, “and designate” is indefinite because it is not clear from the claim what is being “designated”. Clarification is required.

6) In claim 171, lines 10 and 11 states:

“wherein said second completed full-screen video graphic image fills the entire surface of said viewing screen when displayed at said video monitor and contains only a portion of said second completed full-screen video graphic image and only a portion of said first full screen graphic...”

The statement is confusing and indefinite because it is not clear as to how a displayed image can only comprise a portion of itself. Similar clarification is needed in claims 167, 175, and 179.

7) Claims 80-87, 110-114, 116-118, 120-127, 129, 140, 141, 162-166, and 171-176 are confusing and indefinite because: 1) they appear to be “incomplete” in that the few “active steps of manipulation” that are positively recited by the claims appears to be incapable of performing the methods alleged by their preambles; and 2) the claims include excessive numbers of recitations which imply that the recited process includes/requires many “active steps of manipulation” which are not positively recited in the claims (leaving one to

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wonder whether such implied steps actually need be shown by "prior art" to meet the claim or whether such implied steps only constitute recitations of intended use). These section 112-2 issues, out of convenience, have been more fully addressed/developed within "SECTION VI" of this Office action.

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SECTION VI: Section 112-1 issues:

All of the pending claims, i.e. claims 56-74, 76, 80-87, 89-91, 93-114, 116-118, 120-127, 129, 140, 141, 162-176, and 179-182, are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The following is noted:

1. With respect to the recitations of claims 93, 167, 171, 175, and 179:

The examiner notes that a black pixel is black when it is displayed on a viewing screen because its luminance and chrominance components have substantially null values. In additive mixing processes, such black pixels are considered to be "transparent" because their luminance and chrominance components only contribute their substantially null values to the luminance and chrominance components of the additively mixed output pixel values. Namely, when black pixels are overlaid on top of other pixel data via an additive mixing process, the other pixel data will be "seen through" the overlaid black pixels as if "substantially nothing" had been overlaid thereon; i.e. in this situation, the black pixels are effectively "transparent" pixels.

TRANSPARENT: "Capable of transmitting light so that objects or images can be seen as if there was no intervening material" [from the "American Heritage Dictionary"].

As was noted before [e.g. see the Office action mailed in SN 08/470,571 on 8/27/01], in describing applicant's disclosed overlaying process, applicant's 1987 disclosure states that the image being overlaid by the receiver comprises:

"a line of designated color, such as red, on a background color that is transparent when overlaid on a separate image. Black is such a background color, and figure 1A shows one such line." (Emphasis added)
[lines 9-14 on page 25 of the instant disclosure]

And "when" was applicant's generated image of figure 1A actually overlaid on a separate image as was explicitly described in this passage? ANSWER: "When" it was overlaid on the image contained within the received TV broadcast as is

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explicitly described in lines 4-16 on page 26 of the instant disclosure. Specifically, when the statement made in lines 9-14 of page 25 is read in the context the surrounding disclosure, it seems quite apparent that applicant's alleged 1987 inventions used an additive mixing process to perform the described overlay. Namely, it seems clear that the image of figure 1A was to be additively overlaid onto the image of figure 1B in its entirety and, because of this, the need for the explicitly described "transparent" black background (i.e. if the background was not "transparent" the image of the broadcast 1B would be covered/blocked entirely by the image of figure 1A)----Note:

- 1) That the image of figure 1A, including the transparent black transparent background, is clearly the image that is stored within the graphic card of the receiver [note lines 1-14 on page 24 of the instant disclosure]; and
- 2) That the image of figure 1A, the one which is stored within the graphic card, is clearly the image that is overlaid onto the a received image [note lines 4-16 on page 26 of the instant disclosure].

In the response filed on 1/28/2002 in SN 08/470,571, applicant now tries to suggest that the discussion as to the need/use of a "transparent" background color pertained to a hypothetical situation in which the figure 1A image, which was to be overlaid, was actually displayed alone [SEE lines 4-8 on page 104 of said response]. Such an argument is ridiculous. Namely, if the image of figure 1A were ever displayed alone, then there would be no need/reason for providing a "transparent" background color because there would be nothing behind it to see; i.e. the issue of "transparency" loses all meaning in such a context. Clearly, the transparency of the background color only has meaning, and can only be detected, "when" the transparent image data is actually overlaid over another image; i.e. as was explicitly stated in lines 9-14 on page 25 despite applicant's current allegations. And "when" did such an overlay occur? Explicitly in lines 4-16 on page 26 of applicant's disclosure, "when" the image of figure 1A was actually overlaid over the image of figure 1B; i.e. then, and only then, was the significance of the "transparent" background described in lines 9-14 on page 25 ever realized.

The following positions are taken/maintained by the examiner:

- 1) First, it is maintained that there is clearly insufficient support under section 112 in the originally filed instant disclosure for any claim recitation which indicates that a non-additive mixing process was used to combine the images of figure 1A and the image of figure 1B to create the image of figure 1C

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[i.e. there is simply no support for recitations directed to a mixing process in which one portion of an image **"replaces"** a portion of another image **as is still recited by the limitations of claim 93** (e.g. note line 16), **by the limitations of claim 167**(e.g. note lines 19-28), **by the limitations of claim 171**(e.g. note lines 9-16 and 25-31), **by the limitations of claim 175**(e.g. note lines 15-23), and **by the limitations of claim 179** (e.g. note lines 28 and 29)];

2) To the contrary, for the reasons explained above, applicants originally filed disclosure appears to point away from such non-additive mixing/keying via clear/apparent indications that an additive mixing process was the mixing scheme of choice; i.e. one in which the images were simply added together (hence the requirement for the explicitly disclosed "transparent" background which was only needed/required when additive mixing was used); and

3) That there is simply not enough detail shown in figure 1C to confirm or refute any position concerning exactly what type of mixing was used by applicant's alleged 1987 inventions. Contrary to applicant's allegations, figure 1C is not detailed enough to show or refute applicant's position that one portion of any image has been "replaced" by a portion of another. Only the originally filed 1987 written description discussed above seems to shed any light on the method of combining that was actually used by applicant's alleged inventions and this written description seems to refute that which is now claimed by applicant (e.g. it certainly fails to provide section 112-1 support for it).

In applicant's latest response, applicant suggest that the recitations of the pending amended claims are not limited to any specific method of combining. This is simply untrue. By reciting/stating that one portion of an image is "replaced" by another, or that only respective portions of two full-screen images are displayed, applicant is inherently reciting/requiring the mixing process to be a "non-additive" one (i.e. one for which there is clearly no section 112-1 support).

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2. With respect to the plurality of (e.g. "first" and "second") "discrete signal" recitations whose information "portions" are allegedly "organized" with each other, on the receiver side, to produce a "processor instruction":

Applicant's instant 1987 disclosure, as originally filed, never appears to explain exactly how the newly introduced "SPAM" messaging packets of figures 2E-2K relate and/or equate to the "signal unit" and "signal word" structures previously described/defined within applicant's 1981 parent application; e.g. even though the "signal unit" and "signal word" definitions themselves have been "cosmetically" carried forward the instant 1987 disclosure [SEE: the last 10 lines on page 14 of the instant disclosure; and paragraph "3)" under part "B)" of "SECTION I" of this Office action].

To the extent that it is understood by the examiner, the "SPAM" messaging packets of the instant 1987 disclosure actually appear to represent an entirely "new" transport mechanism by which "signal unit"-type information was to be carried within "signal word"-like intervals of the various new types of 1987 "programming" that were discussed in the instant 1987 disclosure. The examiner uses the "signal unit **-type**" and the "signal word **-like**" terminology to emphasize the fact that the examiner perceives very real differences in the configurations of applicant's 1987 and 1981 auxiliary data "packeting" and transmitting schemes [SEE "APPENDIX C" of this Office action]. For example:

1) Wherein ones of the 1981 "signal units" appear to have comprised codes for allowing the programming being broadcast to have been monitored at the receiver stations, in the instant disclosure it was now the 1987 "SPAM" messaging packets structure itself (e.g. that of figures 2E-2K) which contained such program identifying bits, e.g. in the form of "meter-monitor segments", as an integral part of itself; i.e. thereby evidencing the fact that the 1987 "SPAM" packets and the 1981 "signal units" are very different "beast"/entities (e.g. in view that the 1987 "SPAM" packets are not limited to "one" complete signal instruction or information message unit as was the 1981 "signal units" [note lines 25-31 on page 14 of the instant disclosure]);

2) Wherein each one of the 1981 "signal word" intervals appear to have included bits for identifying the beginnings and ends of the "signal word" intervals themselves when such identification was needed/desired (e.g. note lines 2-4 on page 15 of the instant 1987 disclosure), in the instant disclosure it was now the 1987 "SPAM" messaging packets structure itself which carried such bits, e.g. in the form of header codes and end-of-field

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(EOF) codes, for identify the beginnings and endings of the messaging packets themselves via a detected signal cadence; i.e. apparently evidencing the fact that the 1987 "SPAM" packets and the 1981 "signal words" are different "beasts"/entities too (e.g. in view that it is now the "SPAM" packets whose beginnings and ends are identified by the identifying bits rather than the beginning and ends of the "signal words");

3) etc,...

The pending claim have now been amended to include recitations directed to "discrete signals" which carry "partial" and/or "portions of" information that have to be "assembled" on the receiver side of the system [e.g. note: lines 10-12 of **claim 123**; line 24 of **claim 171**; line 4 of **claim 84**; lines 12 and 13 of **claim 93**; lines 7 and 8 of **claim 110**; lines 9-11 of **claim 116**; lines 10-12 of **claim 162**; lines 13 and 14 of **claim 167**; lines 12-14 of **claim 175**; lines 14 and 15 of **claim 179**; etc,...]. In an attempt to find section 112 support for these subsequently added recitations within the originally filed instant 1987 disclosure, it appears that applicant tries to combine the 1987 teachings of "SPAM" message packeting with the 1981 definitions of "signal words" and "signal units" which have been "cosmetically" carried forward into the instant disclosure. Specifically, it appears that applicant is now alleging that the "information" that was conveyed via his 1987 "SPAM" message packets was somehow implicitly and/or inherently conveyed as a plurality of "discrete signals" when read in light of the 1981 "signal word" and "signal unit" definitions. Applicant's position is not understood.

While it is "obvious" that applicant's system was capable of having conveyed information of unspecified SPAM message packets within different "signal word"-like intervals, the instant 1987 disclosure simply did not provide enough information to allow one to have determined which, if any, of the explicitly described/specified "SPAM" message packets was, or had to be, broken up and conveyed in such a fashion. Specifically, in order for one to have known whether a given one of applicant's described SPAM messages had to be transmitted as a plurality of "discrete signals" (or could simply have been conveyed within just one discrete signal), one would have to have known:

- 1) the maximum number of bits could be carried by each of the "signal word"-like intervals of the programming; and

- 2) how many bits actually comprised the specific "SPAM" message packet that is now being recited and in question.

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Only if the number of bits which comprised the "SPAM" message packet in question actually exceeded the maximum number of bits that could be conveyed by one "signal word"-like interval, would one have inherently/implicitly known that the given "SPAM" message had to have been conveyed as a plurality of discrete signals with respective "signal words"-like intervals; i.e. obviously, if the number of bits which comprised the "SPAM" message packet in question did not exceed the maximum number of bits that could be conveyed by one "signal word"-like interval, the packet in question could have been conveyed in its entirety via just one discrete signal.

Given the above, the examiner maintains that there is no section 112-1 support for the subsequently added recitations directed to "discrete signals" which respectively carrying information "portions" which have to be "assembled" on the receiver side of the system. The fact that it might of been "**obvious**" to have transmitted the information contained within unspecified "SPAM" message packets via a plurality of "discrete signals" does not provide the required section 112-1 support for subsequently introduced/added recitation which require a specific one or ones of the originally disclosed "SPAM" messaging packets to be carried in the now recited "discrete signal". For example, there is no evidence in the originally filed 1987 instant disclosure to show that the "SPAM" packets which controlled the generation and display of the "Wall Street Week" graphic overlay were conveyed the plurality of "discrete signals" now being claimed.

To overcome this rejection, applicant is required to point out exactly where the "first" and "second" discrete signal recitations, as recited in the context of each pending amended claim in question, finds section 112-1 support in the instant 1987 disclosure as originally filed; e.g. or to show that the recited "information" portions now being claimed were, as originally disclosed/described, necessarily of a bit length which implicitly/explicitly **required** it to be transmitted/conveyed as a plurality of "discrete signals" and/or within a plurality of the "signal word"-like intervals.

For clarity of the record, applicant is also asked to explain exactly how the "SPAM" packeting of his 1987 disclosure relates back to the 1981 "signal unit" and "signal word" definitions in a completely consistent fashion; e.g. to go beyond the fact that the 1981 "signal unit" and "signal word" definitions were "cosmetically" carried forward into the instant 1987 disclosure. Specifically, applicant is asked to explain how his 1987 "SPAM" message packets comprise,

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or are comprised within, the "signal units" and a "signal words" as originally defined within the 1981 disclosure (of course, applicant must also show where/how such submitted explanations find support in the instant 1987 disclosure as originally filed).

3. Insufficient showing of section 112-1 support:

In related ITC investigation No. 337-TA-392, the Administrative Law Judge found:

- 1) "that the specification of the '277 patent [the 557 pages of the instant 1987 disclosure] is difficult to understand, as it is dealing with many possible systems";
- 2) "that despite complainant's [the current applicant's] attempts to point to the specification of the '277 patent [the 557 pages of the instant 1987 disclosure] as illustrative of some claim elements, said specification has not been helpful in connecting individual claim language to distinct statements in the specification of the '277 patent that is supposed to provide an explanation of the claimed systems in issue";
- 3) "that complainant's [the current applicant's] assertions in many instances of where support in the specification of the '277 patent [the 557 pages of the instant 1987 disclosure] can be found for claimed elements 'reads like the directions to a treasure hunt. There's a piece here, there's a piece there, it's in there somewhere.'"; and
- 4) " that the specification of the '277 patent [the 557 pages of the instant 1987 disclosure] and the claims in issue 'are like ships passing in the night in the same ocean, but not necessarily sailing in the same direction.'"

[SEE: 1997 ITC Lexis 307, *258 (part I of II)]

The examiner continues to adopt these same positions in regard to the pending amended claims currently at issue. Specifically, for reasons already exemplified above, the examiner maintains that applicant continues to draft and submit amended claims which whose recitations are of detail simply not found within, and thus is not supported by, the instant 1987 disclosure as originally filed. When attempting to find/create section 112-1 support for such detailed recitations,

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applicant only points to selected combinations of generalized teachings and alleges that the now claimed details are somehow hidden somewhere within the combinations; e.g. this seems to be the reason why applicant's submissions of alleged section 112 support continue to read "like the directions to the treasure map" as previously noted by the Administrative Judge in the related ITC investigation cited above.

Given the above, applicant is again asked specifically identify where each of the recited elements of each pending amended claim can be found within the originally filed instant 1987 disclosure in the same detail and in the same context that they are currently being claimed. Specifically, applicant is asked to provide an element-by-element pairing of claim recitation to originally filed disclosure in the same way that applicant expects the examiners to do when applying "prior art" under Section 102 (b); i.e. after all, the limitations of applicant's pending amended claims must be "anticipated" by the teachings of applicant's originally filed instant 1987 disclosure if section 112-1 support exists. Clearly, very little effort on the part of applicant should be needed to provide such one-to-one showing of section 112 -1 support.

4. Not only do applicant's showings of alleged section 112-1 claim support continue to read like "treasure maps" (e.g. as was noted above in part 3 of this section), but the "treasure maps" themselves change from action to action. For example:

A) In the response filed by applicant on 6/7/2000 in application SN 08/470571, applicant points to the "Super Discount Supermarket" embodiment of the instant 1987 disclosure as having provided the required section 112-1 support for that which is being claimed in claim 123 [see APPENDIX A of said response]. Yet, in the next response of 1/28/2002, applicant now points to the "WALL STREET WEEK" embodiment of the instant 1987 disclosure for alleged section 112-1 support of this same claim 123. Unfortunately, the response of 1/28/2002 only addresses the section 112-1 support issue in generalities and makes little to no effort to match specific recitations to specific 1987 descriptions [notes the discussion beginning on page 65 of the 1/28/02 response]. Given all of the confusion which continues to surround the claims of record [SEE: paragraph 7 which occurs under Section IV in the Office

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action mailed 9/4/2001 in SN 08/487,526], applicant's failure to provide a clean showing of section 112-1 support for claim 123, particularly when applicant seems to be relying on new/different "treasure map", is not understood by the examiner; e.g. the latest response does little to address outstanding section 112-1 issues and adds additional confusion (for example, *has the "claimed invention" been improperly changed along with the "treasure map"?*⁶⁰).

B) Similarly, in the response filed on 2/4/02 in SN 487,526, a "cooking show embodiment" is cited as being the section 112-1 support for claim 24 [note page 38 of said response] whereas, in the response filed 4/12/99, a "radio/TV simulcast embodiment" was cited as being the section 112-1 support for claim 24 [note page 37 of the earlier response]. Again, the examiner asks: *Has the "claimed invention" been improperly changed along with the "treasure map"?*⁶¹

C) etc,....*the list goes on*

⁶⁰ Applicant's consolidated applications have been divided up into alleged distinct groupings which were created/submitted by applicant. From the beginning, the examiner found it difficult to identify "a feature"/"a common thread" (i.e. the *alleged invention*) to which all claims within each one of applicant's applications were originally directed. As prosecution has progressed, successive responses submitted by applicant within respective applications appear to effect wholesale changes to the pending claims and their limitations [e.g. note the amendment filed 4/12/99 in 08/487,526]. The examiner is concerned by this process in view that rule 1.129(a) attempts to prohibit applicant from changing the invention being claimed within applications that is prosecuted under rule 1.129(a). While the examiner finds it difficult to believe that a same invention can be identified with respect to the original and amended versions of the claims that appear within a given one of applicant's applications [e.g. consolidated applications 08/470,571 and 08/487,526], the examiner is unable to make a determination as to this "same invention" requirement due to the extensive section 112 problems which continue to haunt the record. For now, the examiner must rely on applicant to follow the letter of the law and to make sure that the "same invention" continues to be claimed within respective ones of his consolidated applications.

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5. The disclosed 1987 "WALL STREET WEEK" application that is now allegedly being claimed:

As originally disclosed, the "WALL STREET WEEK" application described in the instant "1987" disclosure appears operate as follows:

A: Each computer controlled receiver station is configured so as to contains an up-to-date list of the stocks currently owned by the user; i.e. the user's "stock portfolio" which lists the type of shares owned and the number of shares owned[@ lines 6-9 on page 449 of the instant disclosure];

B: Each "stock portfolio" contained in each receiver station is maintained up-to-date in one of two ways:

1A: Either manually by the respective user [@ lines 14 and 15 on page 448]; or

2A: "Systematically" by the user's broker's computer [@ lines 30-35 of page 448 and lines 1-6 on page 449].

C: The "closing" price of each stock listed in a given user's up-to-date stock portfolio is then periodically obtained and recorded at the receiver station in one of two ways:

1B: A remote stock price transmitter transmits the closing prices of all stock to the receiver station and causes the receiver station itself to record those closing prices which pertain to the stocks held in the respective user's portfolio [@ lines 13-26 on page 449]; or

2B: A microcomputer within the receiver station is made to call, via a received "SPAM" message, a remote data service computer so as to cause said remote service computer to select and provide to the receiving station those closing prices which pertain to the stocks held in the respective user's portfolio [@ lines 26-35 on page 449].

D: After the closing prices have been obtained, all of the receiver stations are then controlled, in parallel under control of the same

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"embedded computer program" transmission (e.g. *alleged* to be exemplified by "SPAM" messages), to process their specific information and output a respective combined as is described under the heading "more on example #7" 427-447 [SEE: lines 16-26 on page 450; and lines 13-33 on page 427].

6. With respect to the "request" recitations of claim 56:

The 1987 "Wall Street Application" discussed in immediately preceding part "5." is in fact the alleged Section 112 support for claim 56. And, because processing described in this 1987 "Wall Street Week" application is so vastly different from the processing that was previously described for the 1981 "Wall Street Week" application of the 1981 parent, the 1987 disclosure simply imparts a scope and meaning to the limitation of claim 56 which cannot be supported by the 1981 disclosure. Being such, claim 56 is not entitled to the 1981 filing date of the parent application (even if it can be alleged that claim 56 is supported by the 1981 disclosure based on vastly different 1981 scopes and meanings derived from the vastly different 1981 disclosures). Again, as addressed throughout the record, continuity of "common subject matter" is required for Section 120 priority. Further:

A) Currently pending amended claim 56 now includes limitations requiring that "a request" be "originated" at a receiver station and that this originated request be "communicated" to a remote data source, wherein the remote data source provides "remotely originated data" to the receiver in order to "enable content to be displayed" in the combined presentation. The examiner fails to "immediately discern" such a recited "request" within the 1987 "Wall Street Week" disclosure that was discussed in part "5." above, as required under section 112, and notes the following:

1) That the term "request" was not used, and therefor has no antecedent basis, in the cited 1987 disclosure;

2) That the "American Heritage Dictionary" defines a "request" as being "the act of asking" wherein asking is defined to mean: "putting a question to" something/someone; or "seeking information about"

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something/someone. The only information that needs to be sought for, from a remote data source, by a receiver station in the cited 1987 disclosure appear to be the closing stock prices for the shares of stock that are listed in the respective user's stock portfolio. However, it is unclear from the cited 1987 disclosure whether these prices must necessarily be obtained via a "request" that is actually "communicated" to the remote data source. Certainly, a "request" is not "communicated" to the remote data source when the closing prices are obtained using the process discussed in part **"1B"** in paragraph "5." of this Section in view that nothing is communicated to the remote station during this process (e.g. lines 13-26 on page 449 of the instant disclosure). Being such, it means that support for the "request" recitation must come from the process discussed in part **"2B"** in paragraph "5." of this Section (e.g. lines 26-35 on page 449). However, even here, the original 1987 disclosure only indicates that the receiver station is caused to contacts/connect with the remote data source so as "to cause" the remote data source to select and provide those closing prices which need to be updated. One can certainly envision ways in which such an exchange could be achieved without a "request" for the prices ever having been to be communicated to the remote source from the receiver station: e.g. the receiver station might have connected/contacted the remote data source only to say "I am here as instructed by the SPAM message" and, in response thereto, the remote data source might have then selected the prices to be updated via "requests" that it communicated to the receiver station instead. Again, the originally filed disclosure simply did not described the 1987 alleged invention in the "detail" that is now being claimed.

For the reasons addressed above, the examiner maintains that the cited 1987 "Wall Street Week" application/disclosure is simply insufficient to support the recitations of pending amended claim 56 which are now directed to the "communication" of a station originated "request" to the recited remote data source. Such a process might have been obvious from these cited 1987

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disclosures, but they are by no means "inherent" in the cited 1987 disclosures as would be required for adequate section 112 support.

7. With respect to claim 57:

It is not clear where the instant disclosure, as originally filed, disclosed:

- 1) The explicitly recited "programming step" by which the video apparatus of claim 56 was actively programmed to perform the recited step of originating a first request;
- 2) The explicitly recited "programming step" by which the video apparatus of claim 56 was actively programmed to perform the recited step of communicating said first request to a remote data source;
- 3) The explicitly recited "programming step" by which the video apparatus of claim 56 was actively programmed to perform the recited step of receiving remotely originated data from the remote data source to serve as a basis for displaying the video presentation;
- 4) The explicitly recited "programming step" by which the video apparatus of claim 56 was actively programmed to perform the recited step of processing the remotely originated data and locally supplied data in order to generate the locally generated image; and
- 5) The explicitly recited "programming step" by which the video apparatus of claim 56 was actively programmed to perform the recited step of simultaneously displaying said locally generated image and an image received from a remote source.

8. With respect to claim 58:

It is not clear where the instant disclosure, as originally filed, disclosed the recited "video apparatus" which:

- 1) included the "computer" that is recited in line 2 of claim 58; and

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2) which was actively programmed by a programming step to perform any one of (i.e. each of ⁶²) the five active steps recited in claim 56 by:

- A) storing at least one processor instruction in said computer;
- B) detecting an instruct signal received at said video apparatus;
- C) executing said at least one processor instruction in response to said received instruct signal.

9. With respect to claim 59:

It is not clear where applicant's originally filed instant disclosure described:

- 1) The "computer" of claim 58, which executed at least one processor instruction that was stored in said computer so as to perform each of the five steps of programming that are recited in claim 57, wherein the recited stored processor instruction was detected in a signal transmitted from the remote video source of claim 56; and
- 2) The "computer" of claim 58, which executed at least one processor instruction that was stored in said computer so as to perform each of the five steps of programming that are recited in claim 57, wherein the recited stored processor instruction was detected in a signal transmitted from the remote data source of claim 56.

Clarification is needed.

10. With respect to claim 60:

With respect to the originally filed instant disclosure, it is not clear:

- 1) to what from the disclosure the recited term "an identifier" refers; and
- 2) where such a recited "identifier" was disclosed as being processed in the context of claim 56.

Clarification is needed.

⁶² While the claim only requires "any one", section 112-1 support must be provided and shown for each of the recited possibilities(i.e. for each of the "any one").

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11. With respect to claim 61:

With respect to the originally filed instant disclosure, it is not clear:

- 1) to what from the disclosure each of the recited terms “mass medium programming”, “digital programming”, “a communication resource”, and “said locally generated image” refer; and
- 2) wherein each of these recited “mass medium programming”, “digital programming”, “a communication resource”, and “said locally generated image” was described as being identified by an identifier in the context of the recitations of claims 60 and 56.

Clarification is needed.

12. With respect to claim 80:

I. The preamble of claim 80 recites a “method for delivering a video presentation at at least one receiver station of a plurality of receiver stations”. Yet, despite the preamble, claim 80 only positively recites the following two active steps of manipulation:

- 1) a first step in which “a signal” was transmitted from an origination station to a remote intermediate transmitter station (e.g. lines 4 and 5); and
- 2) a second step in which “at least one control signal” was transmitted from said origination transmitter to said remote intermediate transmitter station before a specific time (e.g. lines 10 and 11).

Given the above, the following is noted:

A) It is not clear where the method having the two positively recited active steps of manipulation was described in the originally filed instant disclosure in the required “immediately discernible” fashion. Clarification is needed;

B) Claim 80 appears to be “incomplete” in that the two active steps of manipulation which are positively recited do not appear to constitute a “method for delivering a video presentation at at least one receiver station of a plurality of receiver stations” as alleged in the preamble in view that a video presentation is never delivered at at least one receiver station by the two recited active steps. Clarification is needed.

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II. The examiner notes that claim 80 is loaded with many functional recitations which clearly suggest the presence of further "active steps", yet claim 80 fails to positively recite the steps whose presence is clearly suggested (i.e. wherein a method claim is required to positively set forth the steps that comprise it). For example:

A) Lines 5 and 6 include an "is operative" recitation which suggest that the recited method actually includes a step for "operating", yet such a step is never positively recited in the claim;

B) Lines 6 and 7 include an "to at least one of generate and output" recitation which suggests that the recited method actually includes an step for "at least one of generating and outputting", yet such a step is never positively recited in the claim;

C) Line 7 includes a "locally generated" recitation which suggests that the recited method actually includes an step for "locally generating", yet such a step is never positively recited in the claim;

D) Lines 7 and 8 include an "and cause" recitation which suggests that the recited method actually includes an step for "causing", yet such a step is never positively recited in the claim;

E) Line 12 includes an "is effective" recitation which suggests that the recited method actually includes an step for "effecting", yet such a step is never positively recited in the claim;

F) Lines 12 and 13 include a "to control communication of" recitation which suggests that the recited method actually includes a step for "communicating" and a step for "controlling", yet such steps are never positively recited in the claim.

13. With respect to claim 84:

I. The preamble of claim 84 recites a "method for delivering a video presentation at at least one receiver station of a plurality of receiver stations". Yet, despite the preamble, claim 84 only positively recites the following five active steps of manipulation:

1) a first step in which "video" was received at a transmitter station (e.g. line 7);

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2) a second step in which said [received] "video" was delivered to a transmitter (e.g. line 8);

3) a third step in which "a first discrete signal" was received at said transmitter station (e.g. lines 9 and 10);

4) a fourth in which "said [received] first discrete signal" was transferred to said transmitter (e.g. line 18); and

5) a fifth step which "said [delivered] video" and "said [transferred] first discrete signal" was transmitted to said at least one receiver station (e.g. lines 19 and 20).

Given the above, the following is noted:

A) It is not clear where the method having the five positively recited active steps of manipulation was described in the originally filed instant disclosure in the required "immediately discernible" fashion. Clarification is needed;

B) Claim 84 appears to be "incomplete" in that the five active steps of manipulation which are positively recited do not appear to constitute a "method for delivering a video presentation at at least one receiver station of a plurality of receiver stations" as alleged in the preamble in view that a video presentation is never delivered at at least one receiver station by the five recited active steps. Clarification is needed.

II. The examiner notes that claim 84 is loaded with many functional recitations which clearly suggest the presence of further "active steps", yet claim 80 fails to positively recite the steps whose presence is clearly suggested (i.e. wherein a method claim is required to positively set forth the steps that comprise it). For example:

A) Line 10 includes an "is operative to provide" recitation which suggest that the recited method actually includes a step of "operating to provide", yet such a step is never positively recited in the claim;

B) Line 11 includes a "by enabling" recitation which suggest that the recited method actually includes a step of "enabling", yet such a step is never positively recited in the claim;

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C) Line 12 includes a "to organize" recitation which suggest that the recited method actually includes a step of "organizing", yet such a step is never positively recited in the claim;

D) Line 14 includes an "instructs" recitation which suggest that the recited method actually includes a step of "instructing", yet such a step is never positively recited in the claim;

E) Line 14 includes a "to deliver" recitation which suggest that the recited method actually includes a step of "delivering", yet such a step is never positively recited in the claim;

F) Lines 14 and 15 include a "locally generated" recitation which suggest that the recited method actually includes a step of "locally generating", yet such a step is never positively recited in the claim;

G) Line 15 and 16 includes an "locally generated...being based on" which suggest that the recited method actually includes a step of "locally generating based on", yet such a step is never positively recited in the claim;

H) Line 16 includes a "stored at said...prior to" recitation which suggest that the recited method actually includes a step of "storing...prior to", yet such a step is never positively recited in the claim;

I) Lines 16 and 17 include a "prior to organizing" recitation which suggest that the recited method actually includes a step of "organizing", yet such a step is never positively recited in the claim.

Given the above, the following is noted:

A) It is not clear where each of these "implied active steps of manipulation" was described within the instant disclosure as originally filed;

B) It is not clear whether or not the recited method actually includes (e.g. requires the presence of) the "implied active steps of manipulation.

Clarification is needed.

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III. The examiner maintains that it is still unclear as to where many of the "elements" that are now being positively recited via the functional recitations of claim 84 were described in the instant disclosure as originally filed in the context of the five active steps of manipulation that are actually recited by claim 84. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the five active steps of manipulation now being claimed:

- A) the "delivering of a video presentation at at least one receiver station" as is recited in lines 1 and 2;
- B) the "presence of at least one signal" that is detected in lines 2 and 3;
- C) the "information content of separate ones of a plurality of discrete signals" that is recited in line 4;
- D) the "at least one processor instruction" of line 3 which is comprised of the "information content of separate ones of a plurality of discrete signals" that is recited in line 4;
- E) the "said at least one receiver station" of line 5 which is capable of providing said "at least one processor instruction" of line 3 which is comprised of the "information content of separate ones of a plurality of discrete signals" that is recited in line 4;
- F) the "video" of line 7;
- G) the "first discrete signal" of line 9;
- H) the "transmitter station" of lines 7 and 10 at which both the video of line 7 and the "first discrete signal" of line 9 are "received";
- I) the "transmitter" of lines 8 and 18, to which both the video of line 7 and the "first discrete signal" of line 9 are "transferred";
- J) the "at least one processor instruction" of lines 10 and 11 which is provided to said "at least one receiver station" of line 5 by said "first discrete signal" of line 9;

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K) the “second of the plurality of discrete signals” that is recited in line 13;

L) the “information” of line 13 that is contained within the “second of the plurality of discrete signals” that is recited in line 13;

M) the “at least one receiver station” of line 5 that is “enabled” by the “first discrete signal” of line 9 to “organize” the “information” of line 12 with the “information” of line 13 so as to be provided with said “at least one processor instruction” of line 5 by said “first discrete signal” of line 9;

N) the “user specific data” of line 16 that is “stored” at said “at least one receiver station” of line 5 prior to the organizing of said “at least one processor instruction” of line 5 by said “at least one receiver station” of line 5.

14. With respect to claim 93:

The examiner maintains that it is still unclear as to where many of the “features” that are now being positively recited via claim 93 were described in the instant disclosure as originally filed. Thus, for each of the following listed “features”, applicant is simply asked to point out exactly where the respective feature was described in the originally filed instant disclosure:

A) the “receiver station” of line 2;

B) the “at least one information transmission” of line 4 that is received by the “receiver station” of line 2;

C) the “at least one first discrete signal” of line 5 that is contained within the “at least one information transmission” of line 4 that is received by the “receiver station” of line 2;

D) the “detecting” step of lines 6 and 7 in which the “at least one first discrete signal” of line 5, contained within the received “at least one information transmission” of line 4, is detected;

E) the “at least one processor” of line 8;

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F) the "at least one processor instruction" of lines 11 that was passed **"from"** the "at least one processor" of line 8 by the "passing" step of lines 11 and 12;

G) the "at least one processor instruction" of lines 11 that was passed **"within"** the "at least one processor" of line 8 by the "passing" step of lines 11 and 12;

H) the "passing" step of line 8 in which the detected "at least one first discrete signal" of lines 6 and 7 is/are passed to said "at least one processor" of line 8;

I) the "second discrete signal" of line 10;

J) the "information" of line 10 that is contained within the "second discrete signal" of line 10;

K) the "information" of line 9 that is contained within the "at least one first discrete signal" of line 5 that is contained within the "at least one information transmission" of line 4 that is received at said receiver station of line 2;

L) the "organizing" step of lines 9 and 10 in which the information from the at least one first discrete signal was organized with the information from a second discrete signal;

M) the "responding" step of lines 14 and 15 in which said "at least one processor instruction", which was passed **"within"** the "at least one processor" of line 8 by the "passing" step of lines 11 and 12, was responded to;

N) the "responding" step of lines 14 and 15 in which said "at least one processor instruction", which was passed **"from"** the "at least one processor" of line 8 by the "passing" step of lines 11 and 12, was responded to;

O) the step of generating an image of line 16;

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P) the “portion of said video image” of line 16 that was **“to be replaced”** by the generated image of line 16;

Q) the “one user specific datum” of line 17 that was stored at the receiver station:

1) prior to the organizing step of lines 9 and 10; and

2) based on the “responding” step of lines 14 and 15 in which said “at least one processor instruction”, which was passed **“within”** the “at least one processor” of line 8 by the “passing” step of lines 11 and 12, was responded to;

R) the “one user specific datum” of line 17 that was stored at the receiver station:

1) prior to the organizing step of lines 9 and 10; and

2) based on the “responding” step of lines 14 and 15 in which said “at least one processor instruction”, which was passed **“from”** the “at least one processor” of line 8 by the “passing” step of lines 11 and 12, was responded to.

15. With respect to claim 110:

I. The preamble of claim 110 recites a “method for outputting a video presentation at at least one of a plurality of receiver stations”. Yet, despite the preamble, claim 110 only positively recites the following six active steps of manipulation:

1) a first step in which at least one discrete signal, containing information, was received at at least one transmitter station (e.g. lines 5 and 6);

2) a second step in which said at least one discrete signal was transferred to at least one transmitter (e.g. line 18);

3) a third step in which a first information signal, including said [transferred] at least one discrete signal, was transmitted;

4) a fourth step in which an additional processor instruction was received at said at least one transmitter station;

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5) a fifth step in which said [received] additional processor instruction was transferred to said at least one transmitter;

6) a sixth step in which a second information signal, including said [transferred] additional processor instruction, was transmitted.

Given the above, the following is noted:

A) It is not clear where the method having the six positively recited active steps of manipulation was described in the originally filed instant disclosure in the required "immediately discernible" fashion. Clarification is needed;

B) Claim 110 appears to be "incomplete" in that the six active steps of manipulation which are positively recited do not appear to constitute a "method for outputting a video presentation at at least one of a plurality of receiver stations" as alleged in the preamble in view that a video presentation is never outputted by the six recited active steps. Clarification is needed.

II. The examiner notes that claim 110 is loaded with many functional recitations. The examiner maintains that it is still unclear as to where many of the "elements" that are now being positively recited via these functional recitations were described in the instant disclosure as originally filed in the context of the six active steps of manipulation that are actually recited by claim 110. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the six active steps of manipulation now being claimed:

A) the "at least one of said plurality of receiver stations" that is recited in line 9;

B) the "information" that is recited line 6;

C) the "at least one transmitter station" of line 5;

D) the "first discrete signal" of line 5 that:

1) is received at the "at least one transmitter station" of line 5; and

2) contains the "information" of line 6;

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E) the "information" of line 8;

F) the "second discrete signal" of line 8 that contains the "information" of line 8;

G) the "first of said plurality of processor instructions" recited in line 6;

H) the "additional processor instruction of said plurality of processor instructions" of line 10 and 11 that was "subsequently received" by said at least one of said plurality of receiver stations of line 9;

I) said "first of said plurality of processor instructions" recited in line 6 wherein this first instruction comprised the "information" of line 7 that is "organized" from:

1) the "information" that is contained in the "first discrete signal" of line 5 that was received at said "at least one transmitter" of line 5; and

2) the "information" that is contained in the "second discrete signal" of line 8;

J) said "one of the plurality of receiver stations" in line 9, which was "programmed" to respond to the subsequently received "additional processor instruction" of line 10, via said "first of said plurality of processor instructions" of line 6;

K) the "video presentation" of line 1;

L) the "portion of said video presentation" recited in line 13 that is outputted by said "one of the plurality of receiver stations" of line 9:

1) wherein said "portion of said video presentation" is outputted by said one receiver station of line 9 based on the subsequently received "additional processor instruction" of lines 10 and 11;

2) wherein said "one receiver station" of line 9 is programmed to respond to said subsequently received "additional processor instruction" of line 10 and 11 by said "first of said plurality of processor instructions" of line 6; and

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3) wherein said "first of said plurality of processor instructions" of line 6 comprises information that is organized from:

a) "information" contained within "a first discrete signal" that was "received" at the "at least one transmitter station" of line 5; and

b) "information" contained in the "second discrete signal" of line 8;

M) the "at least one transmitter" of line 18;

N) the "said at least said first discrete signal" of line 18;

O) the "transferring" step of line 18 in which "said at least said first discrete signal" of line 18 was transferred to said "at least one transmitter" of line 18;

P) the "transmitting" step of line 19 in which the "first information signal" of line 19 was transmitted:

1) wherein the transmitted "first information signal" included said "first discrete signal" of line 5 that was received at said "at least one transmitter station" of line 5; and

2) wherein said "first discrete signal" of line 5 contained the "information" which, along with the "information" contained within the second discrete signal of line 8, was organized into the "information" that comprised the "first of the processor instructions" that is recited in line 6; and

3) wherein this "first of the processor instructions" that is recited in line 6 was used to program said one receiver station to responds to the subsequently received "additional instruction" of line 10.

Q) the "receiving" step of lines 21 and 22 in which the subsequently received "additional processor instruction" of lines 10 and 11 was received at the "at least on transmitter station" of line 18;

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R) the “transferring” step of line 22 in which “said [received] additional processor instruction” of lines 20 and 21 were transferred to the “at least one transmitter” of line 18;

S) the “transmitting” step of lines 23 and 24 in which the “second information transmission” of line 23 was transmitted wherein this “second information transmission” included the subsequently received “additional processor instruction” of lines 10 and 11.

16. With respect to claim 116:

I. The preamble of claim 116 recites a “method of delivering a video presentation at one of a plurality of receiver stations”. Yet, despite the preamble, claim 116 only positively recites the following two active steps of manipulation:

1) a first step in which a first discrete signal is transmitted from an origination station to a remote intermediate transmitter station (e.g. lines 8 and 9);

2) a second step in which “at least one control signal” was transmitted from said origination station to said remote intermediate station before a specific time.

Given the above, the following is noted:

A) It is not clear where the method having these two positively recited active steps of manipulation was described in the originally filed instant disclosure in the required “immediately discernible” fashion. Clarification is needed;

B) Claim 116 appears to be “incomplete” in that the two active steps of manipulation which are positively recited do not appear to constitute a “method of delivering a video presentation at one receiver station of a plurality of receiver stations” as alleged by the preamble of the claim in view that a video presentation is never delivered at one of the receiver stations the two recited active steps.

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II. The examiner notes that claim 116 is loaded with many functional recitations. The examiner maintains that it is still unclear as to where many of the "elements" that are now being positively recited via these functional recitations were described in the instant disclosure as originally filed in the context of the two active steps of manipulation that are actually recited by claim 116. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the two active steps of manipulation now being claimed:

- A) the "video presentation" that is recited in line 1;
- B) the "at least one signal" whose presence is detected in line 3;
- C) the "one receiver station" of lines 3 and 4;
- D) the "video" that is received and displayed in line 4;
- E) the "remote intermediate transmitter station" of lines 4 and 5 which provides said "video" of line 4;
- F) the "locally generated image" of line 5;
- G) the "at least one processor instruction" of line 6, e.g. based on which the "locally generated image" of line 5 was displayed "in conjunction with" the "video" of line 4 at the "one receiver station" of lines 3 and 4;
- H) the "information" of line 10 that is contained within the "first discrete signal" of line 8;
- I) the "information" of line 10 that is contained within the "second discrete signal" of line 11;
- J) the "origination transmitter" of line 8;
- K) the "first discrete signal" of line 8, which was transmitted from the "origination transmitter" of line 8 to the "remote intermediate transmitter station" of lines 4 and 5, and which contains the "information" of line 10;
- L) the "second discrete signal" of line 11;

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M) the "at least one processor instruction" of line 6 which is comprised of the "information" of line 10 that is contained within the "first discrete signal" of line 8, and is comprised of the "information" of line 10 that is contained within the "second discrete signal" of line 11;

N) the "one receiver station" of lines 3 and 4 that is "adapted to organize" the "information" contained in the "first discrete signal" with the "information" contained in the "second discrete signal" as is now recited in lines 11-13;

O) the "one intermediate transmitter station" of lines 5 that is "adapted to organize" the "information" contained in the "first discrete signal" with the "information" contained in the "second discrete signal" as is now recited in lines 11-13;

P) the "specific time" of line 15;

Q) the "at least one control signal" of line 14 that is transmitted from the "origination transmitter" of line 8 to the "intermediate transmitter station" of lines 4 and 5 before said "specific time" of line 15;

R) the "at least one control signal" of line 17 that;
1) is transmitted from the "origination transmitter" of line 8 to the "remote intermediate station" of lines 4 and 5 before said "specific time" of line 15; and

2) is effective at said "remote intermediate transmitter station" of lines 4 and 5 to control the communication of "said at least one processor instruction" of line 6 when said "remote intermediate transmitter station" is adapted to organize the information that is contained within the first and second discrete signals of line 10;

wherein said "processor instruction" whose communication is being controlled by said "at least one control signal", is comprised of the "information" that is being organized by said "remote intermediate transmitter station";

[i.e. as is now required via lines 16-19 as read in the context of the claim], and

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S) the “at least one control signal” of lines 20 and 21 that;
1) is transmitted from the “origination transmitter” of line 8 to the “remote intermediate station” of lines 4 and 5 before said “specific time” of line 15; and

2) is effective at said “remote intermediate transmitter station” of lines 4 and 5 to control the communication of “said first discrete signal” of line 8 when said “receiver station” of lines 3 and 4 is adapted to organize the information that is contained within said first and the second discrete signals of line 10;

wherein said “first discrete signal” whose communication is being controlled by said “at least one control signal”, is transmitted from the origination station of line 8 to the remote intermediate station of lines 4 and 5 [i.e. as is now required via lines 20-23 as read in the context of the claim].

17. With respect to claim 123:

I. The preamble of claim 123 recites a “method of delivering a video presentation at one of a plurality of receiver stations”. Yet, despite the preamble, claim 116 only positively recites the following five active steps of manipulation:

1) a first step in which “at least one instruct signal” was received at a remote transmitter station (e.g. line 8);

2) a second step in which said [received] “at least one instruct signal” was transferred to at least one transmitter (e.g. line 9);

3) a third step in which “at least one first discrete signal” and “at least one control signal” were received at said remote transmitter station (e.g. lines 10 and 11);

4) a fourth step in which “said [received] at least one first discrete signal” and “said [received] at least one control signal” were transferred to at least one transmitter (e.g. lines 22 and 23); and

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5) a fifth step in which and "information transmission" containing "said [received] at least one instruct signal", "said [transferred] at least one first discrete signal", and "said [transferred] at least one control signal" was transmitted to "said at least one of a plurality of receiver stations" by said "at least one transmitter" (e.g. lines 23-26).

Given the above, the following is noted:

A) It is not clear where the method having these five positively recited active steps of manipulation was described in the originally filed instant disclosure in the required "immediately discernible" fashion. Clarification is needed;

B) Claim 123 appears to be "incomplete" in that the five active steps of manipulation which are positively recited do not appear to constitute a "method of delivering a video presentation at one receiver station of a plurality of receiver stations" as alleged by the preamble of the claim in view that a video presentation is never delivered at one of the receiver stations via the five recited active steps.

II. The examiner notes that claim 123 is loaded with many functional recitations which clearly suggest the presence of further "active steps", yet claim 123 fails to positively recite the steps whose presence is clearly suggested (i.e. wherein a method claim is required to positively set forth the steps that comprise it). For example:

A) Line 12 includes an "operative to provide" recitation which suggests that the recited method actually includes a step of "operating to provide", yet such a step is never positively recited in the claim;

B) Line 13 includes an "and designate" recitation which suggests that the recited method actually includes a step of "designating", yet such a step is never positively recited in the claim;

C) Lines 13 and 14 include a "by organizing" recitation which suggests that the recited method actually includes a step of "organizing", yet such a step is never positively recited in the claim;

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D) Line 15 includes a "designates" recitation which suggests that the recited method actually includes a step of "designating", yet such a step is never positively recited in the claim;

E) Lines 16 and 17 include an "is operative to cause" recitation which suggests that the recited method actually includes a step of "operating to cause", yet such a step is never positively recited in the claim;

F) Line 18 includes a "to generate" recitation which suggests that the recited method actually includes a step of "generating", yet such a step is never positively recited in the claim;

G) Line 18 includes a "and output" recitation which suggests that the recited method actually includes a step of "outputting", yet such a step is never positively recited in the claim;

H) Line 19 includes a "for delivery" recitation which suggests that the recited method actually includes a step of "delivering", yet such a step is never positively recited in the claim;

I) Line 19 includes a "is based on" recitation which suggests that the recited method actually includes a step of "generating based on...", yet such a step is never positively recited in the claim;

J) Line 20 includes a "stored at...prior to" recitation which suggests that the recited method actually includes a step of "storing,,,prior to", yet such a step is never positively recited in the claim;

K) Lines 20 and 21 include a "prior to said organizing of said identifier" recitation which suggest that the recited method actually includes a step of "organizing and identifier", yet such a step is never positively recited in the claim.

Given the above, the following is noted:

A) It is not clear where each of these "implied active steps of manipulation" was described within the instant disclosure as originally filed;

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B) It is not clear whether or not the recited method actually includes (e.g. requires the presence of) the "implied active steps of manipulation. Clarification is needed.

III. The examiner maintains that it is still unclear as to where many of the "elements" that are now being positively recited were described in the instant disclosure as originally filed in the context of the five active steps of manipulation that are actually recited by claim 123. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the five active steps of manipulation now being claimed:

A) the "video presentation" which was delivered in line 1;

B) the "at least one signal" whose presence was detected in line 3;

C) the "second image" of lines 6 and 7 which was designated by the "identifier" of line 5;

D) the "remote transmitter station" of line 5;

E) the "at least one instruct signal" of line 8 which was received at the remote transmitter of line 8;

F) the "at least one transmitter" of line 9;

G) the "at least one first discrete signal" of line 10 which was received at the "remote transmitter station" of line 5;

H) the "at least one control signal" of line 10 which was received at the "remote transmitter station" of line 5;

I) the "partial information of said identifier" of lines 11 and 12 that:

1) was contained within said "at least one first discrete signal" of line 10 that was received at the "remote transmitter station" of line 5; **and**

2) was "provided" by said "at least one control signal" of line 10 that was also received at the "remote transmitter station" of line 5;

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- J) the "information" of line 14 that is contained within the "second discrete signal" of line 14;
- K) the "partial information [of said identifier]" of line 14 that is organized with the information of line 14;
- L) the "identifier" of line 15 which:
 - 1) designates said second image at said at least one of a plurality of receiver stations; and
 - 2) is operative to cause said at least one [received] instruct signal" of line 8 to be effective at said at least one of said plurality of receiver stations to generate and output said second image in conjunction with said first image.
- M) the "organizing of said identifier" as is recited in line 21;
- N) the "at least one information transmission" of lines 23 and 24 which contains the "at least one [transferred] instruct signal" of line 9, the "at least on [transferred] first discrete signal" of line 22, and the "at least on [transferred] control signal" of line 22 instruct ";
- N) the "at least one transmitter" of line 23:
 - 1) to which the "[received] at least one first discrete signal" and the "[received] at least one control signal" of line 10 are "transferred"; and
 - 2) from which the "at least one information transmission" of lines 23 and 24 was transmitted.
- O) The "identifier" of line 15 which was organized at at least one receiver station from partial identifier components contained in at least two different discrete signals, wherein:
 - 1) the partial identifier component of one of the discrete signals was transmitted to the receiver station from a remote transmitter station;
 - 2) the partial identifier components were organized into said identifier under the control of at least one control signal which was

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also transmitted to the receiver station from the remote transmitter station;

3) the organized identifier ***both***:

- a) identified a second image which was to be generated; and
- b) caused an instruct signal, which was also transmitted from said remote transmitter station, to actually generate and display said identified second image.

18. With respect to claim 162:

I. The preamble of claim 162 recites a “method of delivering a video presentation at one of a plurality of receiver stations”. Yet, despite the preamble, claim 116 only positively recites the following five active steps of manipulation:

- 1) a first step in which “a video image” was received at a transmitter station (e.g. line 6);
- 2) a second step in which “said [received] “video image” was delivered to a transmitter (e.g. line 7);
- 3) a third step in which “at least a first of a plurality of discrete signals” was received at said transmitter station (e.g. lines 8 and 9);
- 4) a fourth step in which “said [received] at least a first of said plurality of discrete signals” was transferred to said transmitter (e.g. lines 17 and 18); and
- 5) a fifth step in which “said [delivered] video image” and “said [transferred] at least a first of said plurality of discrete signals” was transmitted from said transmitter station to said at least one receiver station (e.g. lines 19 and 20).

Given the above, the following is noted:

- A) It is not clear where the method having these five positively recited active steps of manipulation was described in the originally filed instant

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disclosure in the required "immediately discernible" fashion. Clarification is needed;

B) Claim 162 appears to be "incomplete" in that the five active steps of manipulation which are positively recited do not appear to constitute a "method of delivering a video presentation at one receiver station of a plurality of receiver stations" as alleged by the preamble of the claim in view that a video presentation is never delivered at one of the receiver stations via the five recited active steps.

II. The examiner notes that claim 162 is loaded with many functional recitations which clearly suggest the presence of further "active steps", yet claim 162 fails to positively recite the steps whose presence is clearly suggested (i.e. wherein a method claim is required to positively set forth the steps that comprise it). For example:

A) Line 10 includes an "enables" recitation which suggests that the recited method actually includes a step of "enabling", yet such a step is never positively recited in the claim;

B) Line 10 includes a "to organize" recitation which suggests that the recited method actually includes a step of "organizing", yet such a step is never positively recited in the claim;

C) Line 12 includes a "to provide" recitation which suggests that the recited method actually includes a step of "providing", yet such a step is never positively recited in the claim;

D) Line 12 includes an "enables" recitation which suggests that the recited method actually includes a step of "enabling", yet such a step is never positively recited in the claim;

E) Line 13 includes a "to be able to identify" recitation which suggests that the recited method actually includes a step of "identifying", yet such a step is never positively recited in the claim;

F) Line 13 includes an "locally generated" recitation which suggests that the recited method actually includes a step of "locally generating", yet such a step is never positively recited in the claim;

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G) Line 13 includes an "and output" recitation which suggests that the recited method actually includes a step of "outputting", yet such a step is never positively recited in the claim;

H) Line 15 includes a "being based on" recitation which suggests that the recited method actually includes a step of "generating...based on", yet such a step is never positively recited in the claim;

I) Line 10 includes a "prior to said organizing of said code" recitation which suggests that the recited method actually includes a step of "organizing code", yet such a step is never positively recited in the claim.

Given the above, the following is noted:

A) It is not clear where each of these "implied active steps of manipulation" was described within the instant disclosure as originally filed;

- 3 B) It is not clear whether or not the recited method actually includes (e.g. requires the presence of) the "implied active steps of manipulation. Clarification is needed.

III. The examiner maintains that it is still unclear as to where many of the "elements" that are now being positively recited were described in the instant disclosure as originally filed in the context of the five active steps of manipulation that are actually recited by claim 162. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the five active steps of manipulation now being claimed:

A) the "video presentation" which was delivered in line 1;

B) the "plurality of discrete signals" recited in line 4;

C) the "code" of line 3 that is comprised of "information" that is contained in at least two of said "plurality of discrete signals" that were recited in line 4 (e.g. as set forth in lines 4 and 5);

D) the "at least one receiver station" of lines 1 and 2 that is/are programmed to process said "code" of line 3;

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E) the "at least a first" of "said plurality of discrete signals" of lines 3 and 4;

F) the "information" of line 10 that is contained in "said at least a first of said plurality of discrete signals" of lines 3 and 4;

G) the "second of said plurality of discrete signals" of lines 11 and 12;

H) the "information" of line 11 that is contained in the "second of said plurality of discrete signals" of lines 11 and 12;

I) the "said at least one receiver station" of line 10 that is "enabled" by "said at least a first of said plurality of discrete signals" to "organize" the "information" contained within said "said at least a first of said plurality of discrete signals" with the information contained in said "second of said plurality of discrete signals";

J) the "said at least one receiver station" of line 10 that provides "said code" of line 3, i.e. "said code" for which said same "at least one receiver station" of line 10 has been programmed to process, by "organizing" the "information" contained within said "said at least a first of said plurality of discrete signals" with the information contained in said "second of said plurality of discrete signals";

K) the "said code" of line 12, which is provided by "said at least one receiver station", which "enables" "said at least one receiver station" to identify a locally generated image and output said locally generated image.

L) the "transmitter station" of lines 6 and 20;

M) the "transmitter" of lines 7 and 18.

19. With respect to claim 167:

I. The examiner maintains that it is still unclear as to where many of the "features" that are now being positively recited within claim 167 were described in the instant disclosure as originally filed. Being such, for each of the following listed "features", applicant is simply asked to point out exactly where the feature

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was described in the originally filed instant disclosure in the context of the method that is now being claimed:

- A) the “video graphic presentation” recited in line 1;
- B) the “code” that is recited in line 4;
- C) the “at least a first discrete signal” that is recited in lines 3 and 4;
- D) the “said at least a first discrete signal of said code” that is recited in line 11;
- E) the “information contained in said at least first discrete signal” that is recited in line 13;
- F) the “video monitor” of line 7 having a “viewing screen”;
- G) the “at least one graphic image” of line 5;
- H) the “first completed full-screen video graphic image” of line 4 that contains the “at least one graphic image” of line 5;
- I) the “displayed first completed full-screen video graphic image” of line 8-10, which fills the entire surface area of said viewing screen of said video monitor;
- J) the “**locally generated** second completed full-screen video graphic image” of lines 20 and 21;
- K) the “only a portion” of said “**locally generated** second completed full-screen video graphic image” that is now recited in lines 20 and 21;
- L) the “only a portion” of “said first completed full-screen graphic image” that is now recited in lines 27 and 28;
- M) the “second completed full screen video graphic image” of lines 24 and 25;
- N) the “displayed second completed full screen video graphic image” of lines 25 and 25 which, like the “displayed first completed full-screen video

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graphic image" of line 8-10, also fills " the entire surface area of the viewing screen of said monitor: e.g., wherein said "displayed second completed full screen video graphic image" of lines 25 and 25 allegedly contains:

1) **only the passed portion** of said second completed full-screen graphic image (i.e. a passed portion of that which is displayed ??????????????); and

2) **only a portion** of "said first completed full-screen graphic image" wherein "said first completed full-screen graphic image" appears to have already displayed (in its entirety ????????????) in lines 8-10.

O) the "transmission" of line 3, which is received from a remote transmitter station, that contains:

1) said "at least a first discrete signal of code"; and

2) said "first completed full-screen video graphic image" that contains said "at least one graphic image".

P) the step of "passing" recited in lines 6 and 7 wherein "said received first completed full-screen video graphic image" is passed to the "video monitor" of line 7;

Q) the "detecting" step of line 11 in which "said [received] at least a first discrete signal of said code" is detected;

R) the "at least one processor" of line 12;

S) the "passing" step of line 12 in which the detected "said [received] at least a first discrete signal of said code" of line 11 is passed to said "at least one processor" of line 12;

T) the "at least one control signal" of lines 14 and 15;

U) the "information" of line 13 and the "information" of line 14 which are organized by the "organizing" step of lines 13-15 based on said "at least one control signal" of lines 14 and 15;

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V) the "at least one processor instruction" of line 16 which comprised the information that was organized in lines 13-15;

W) the "receiver station" of line 16, at which a response was made to the organized information that comprised said "at least one processor instruction" of line 16;

X) the step of "responding" recited in lines 16-18 which serves as the basis for passing said "only a portion of said locally generated second completed full-screen video graphic image.

20. With respect to claim 171:

I. The preamble of claim 171 recites a "method of delivering a video graphic presentationat one of a plurality of receiver stations". Yet, despite the preamble, claim 171 only positively recites the following five active steps of manipulation:

1) a first step in which "at least one discrete signal" was received at a transmitter station (e.g. lines 18 and 19);

2) a second step in which "said [received] at least one discrete signal" was transferred to a transmitter (e.g. line 20);

3) a third step in which "one or more control signals" were received at said transmitter station (e.g. line 21);

4) a fourth step in which "said [received] one or more control signals" were transferred to said transmitter (e.g. line 32); and

5) a fifth step in which a transmission was transmitted wherein said transmission comprised "said [transferred] at least one discrete signal" and "said [transferred] one or more control (e.g. lines 33 and 34).

Given the above, the following is noted:

A) It is not clear where the method having these five positively recited active steps of manipulation was described in the originally filed instant

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disclosure in the required "immediately discernible" fashion. Clarification is needed;

B) Claim 171 appears to be "incomplete" in that the five active steps of manipulation which are positively recited do not appear to constitute a "method of delivering a video graphic presentationat one of a plurality of receiver stations" as alleged by the preamble of the claim in view that a video graphic presentation is never delivered at one of the receiver stations via the five recited active steps.

II. The examiner notes that claim 171 is loaded with many functional recitations which clearly suggest the presence of further "active steps", yet claim 171 fails to positively recite the steps whose presence is clearly suggested (i.e. wherein a method claim is required to positively set forth the steps that comprise it). For example:

A) Line 22 includes an "are operative" recitation which suggests that the recited method actually includes a step of "operating to", yet such a step is never positively recited in the claim;

B) Line 22 includes a "to provide" recitation which suggests that the recited method actually includes a step of "providing", yet such a step is never positively recited in the claim;

C) Line 23 includes a "by causing" recitation which suggests that the recited method actually includes a step of "causing", yet such a step is never positively recited in the claim;

D) Line 23 and 24 includes a "to organize" recitation which suggests that the recited method actually includes a step of "organizing", yet such a step is never positively recited in the claim;

E) Line 25 includes a "instruction directing" recitation which suggests that the recited method actually includes a step of "directing", yet such a step is never appears to be positively recited in the claim;

F) Line 26 includes a "viewing screen displaying" recitation which suggests that the recited method actually includes a step of "displaying", yet such a step is never appears to be positively recited in the claim;

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G) Line 30 includes an "is based" recitation which suggests that the recited method actually includes a step of "generating based on", yet such a step is never positively recited in the claim;

H) Line 30 includes a "stored...prior to" recitation which suggests that the recited method actually includes a step of "generating...based on", yet such a step is never positively recited in the claim;

I) Line 10 includes a "said organizing" recitation which suggests that the recited method actually includes a previously recited step of "organizing", yet such a step has never been previously or positively recited in the claim.

Given the above, the following is noted:

A) It is not clear where each of these "implied active steps of manipulation" was described within the instant disclosure as originally filed;

B) It is not clear whether or not the recited method actually includes (e.g. requires the presence of) the "implied active steps of manipulation.

Clarification is needed.

III. The examiner maintains that it is still unclear as to where many of the "elements" that are now being positively recited were described in the instant disclosure as originally filed in the context of the five active steps of manipulation that are actually recited by claim 162. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the five active steps of manipulation now being claimed:

A) the "first completed full-screen video graphic image" of line 2;

B) the "the second completed full-screen video graphic image" of lines 2 and 3;

C) the "receiver" of line 4;

D) the "signal detector" of lines 4 and 5;

E) the "processor" of line 5;

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- F) the "at least one processor instruction" of line 5 that is executed by the "processor" of line 5;
- F) the "viewing screen" of line 6;
- G) the "one or more control signals" of lines 6 and 7;
- H) the portion of "each" receiver station that "is adapted" to detect the presence of said "one or more control signals" of lines 6 and 7 (e.g. as is recited in lines 4-7);
- I) the "at least one processor instruction" of line 7;
- J) the programming with which each receiver station is "programmed" so as to process said "at least one processor instruction" of line 7 (e.g. as is recited in lines 4-7);
- K) the "portion" of the "the second completed full-screen video graphic image" that is recited in line 9;
- L) the "at least one receiver station" of line 8 that is "programmed" to process the "at least one processor instruction" of line 7, wherein the "at least one processor instruction" of line 7 "instructs" the "at least one receiver station" of line 8 to pass "only" said "portion" of the "the second completed full-screen video graphic image" that is recited in line 9 (e.g. as recited in lines 7-9);
- M) the "the second completed full-screen video graphic image" of line 10 which comprises only a portion of itself ????????????????? (e.g. as is recited in lines 10-13);
- N) the "at least one graphics image" of line 16;
- O) the "at least one discrete signal" of line 18 which contains "only partial information" of the "at least one processor instruction" of line 7 which was used to instruct "said at least one receiver station" of line 8 to pass only said "portion" of the second completed full-screen video graphic image" to the video monitor;

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P) the "second discrete signal" of line 24;

P) the "information" of the "second discrete signal" that is recited in line 24;

P) the "partial information" of line 19:

1) which "partial information" was contained within the "said at least one discrete signal" of line 18 received at the "said transmitter station" of line 18;

2) which "partial information" was organized with said "information" of the "second discrete signal", by said "at least one receiver station" of line 8, under the operation of "said one or mote control signals" that were received at said transmitter station in line 21 (e.g. lines 21-24);

Q) the "at least one processor instruction" of line 25;

R) the "transmission" of line 33 which is comprised of "said [transferred] at least one discrete signal" and "said [transferred] one or more control signals".

21. With respect to claim 175:

I. The preamble of claim 175 recites a "method of delivering a video graphic presentation at one of a plurality of receiver stations". Yet, despite the preamble, claim 175 only positively recites the following three active steps of manipulation:

1) a first step in which "a first completed full-screen video graphic image" was transmitted from "an origination station transmitter" to a "remote intermediate transmitted station" (e.g. lines 6 and 7);

2) a second step in which "at least one discrete signal" was transmitted from "said origination station transmitter" to "said remote intermediate transmitted station" (e.g. lines 11 and 12); and

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3) a third step in which "one or more control signals" were transmitted from "said origination station transmitter" to "said remote intermediate transmitted station" (e.g. lines 24 and 25);

Given the above, the following is noted:

A) It is not clear where the method having these three positively recited active steps of manipulation was described in the originally filed instant disclosure in the required "immediately discernible" fashion. Clarification is needed;

B) Claim 175 appears to be "incomplete" in that the three active steps of manipulation which are positively recited do not appear to constitute a "method of delivering a video graphic presentationat one of a plurality of receiver stations" as alleged by the preamble of the claim in view that a video graphic presentation is never delivered at one of the receiver stations via the three recited active steps.

II. The examiner notes that claim 175 is loaded with many functional recitations which clearly suggest the presence of further "active steps", yet claim 175 fails to positively recite the steps whose presence is clearly suggested (i.e. wherein a method claim is required to positively set forth the steps that comprise it). For example:

A) Line 7 includes a "that fills" recitation which suggests that the recited method actually includes a step of "filling", yet such a step is never positively recited in the claim;

B) Line 8 includes a "when displayed" recitation which suggests that the recited method actually includes a step of "displaying", yet such a step is never positively recited in the claim;

C) Line 9 includes a "to be transmitted by" recitation which suggests that the recited method actually includes a step of "transmitting", yet such a step is never positively recited in the claim;

D) Line 14 includes a "is organized" recitation which suggests that the recited method actually includes a step of "organizing", yet such a step is never positively recited in the claim;

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E) Line 16 includes a “generates and outputs” recitation which suggests that the recited method actually includes steps of “generating” and “outputting”, yet such a step is never appears to be positively recited in the claim;

F) Line 19 includes a “when displayed” recitation which suggests that the recited method actually includes a step of “displaying”, yet such a step is never appears to be positively recited in the claim;

G) Line 26 includes an “when...is adapted” recitation which suggests that the recited method actually includes a step of “selectively adapting”, yet such a step is never positively recited in the claim;

H) Lines 28 and 29 include a “to control communication of” recitation which suggests that the recited method actually includes a step of “controlling the communication of”, yet such a step is never positively recited in the claim;

I) Line 31 includes a “when...is adapted” recitation which suggests that the recited method actually includes a step of “selectively adapting”, yet such a step is never positively recited in the claim;

H) Line 33 includes a “to control communication of” recitation which suggests that the recited method actually includes a step of “controlling the communication of”, yet such a step is never positively recited in the claim.

Given the above, the following is noted:

A) It is not clear where each of these “implied active steps of manipulation” was described within the instant disclosure as originally filed;

B) It is not clear whether or not the recited method actually includes (e.g. requires the presence of) the “implied active steps of manipulation.

Clarification is needed.

III. The examiner maintains that it is still unclear as to where many of the “elements” that are now being positively recited were described in the instant

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disclosure as originally filed in the context of the five active steps of manipulation that are actually recited by claim 175. For each of the following listed "features", applicant is simply asked to point out where the respective feature was described in the originally filed instant disclosure in the context of the three active steps of manipulation now being claimed:

- A) the "plurality of receiver stations" recited in line 2;
- B) the "at least one receiver station" recited in line 2;
- C) the "adaptation" of line 3 which was made to each of the "plurality of receiver stations" of line 2 in order to allow each of the receiver stations to "detect the presence of signals" as is recited in line 3;
- D) the "video monitor" and "viewing screen" of line 4;
- C) the "origination station transmitter" of line 6;
- D) the "remote intermediate transmitter station" of lines 6 and 7;
- E) the "first completed full-screen video graphic image that fills the entire surface area of said viewing screen when displayed" as is recited in lines 7 and 8;
- F) the "at least one processor instruction" of line 13;
- G) the "part of" said at least one processor instruction that is recited in line 13;
- H) the "information" of line 12 that comprises only said "part of" said at least one processor instruction recited in line 13;
- I) the "at least one discrete signal" of lines 12 that contains said "information" of line 12;
- J) the "second discrete signal" of line 15;
- K) the "information" of line 15 that is contained within said "second discrete signal" of line 15;

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L) the process of "organizing" recited in line 14 in which the "at least one processor instruction" of line 13 is organized from the information contained in said "at least one discrete signal" and the information contained in said "second discrete signal";

M) the "second completed full-screen video graphic image that fills the entire surface area of said viewing screen when displayed" as is recited in lines 17- 19;

N) the "the second completed full-screen video graphic image" which comprises only a portion of itself ?????????????????? (e.g. as is recited in lines 17-19);

O) the "portion" of "the second completed full-screen video graphic image" which is generated and outputted by the "at least one receiver station" of line 2 based on said "at least one processor instruction" of line 13, wherein this said "at least one processor instruction" was "organized" from:

1) information contained in said "second discrete signal" of line 15; and

2) information contained within said "at least one first discrete signal" of 12 which was transmitted from the "origination station transmitter" of line 11 to the "remote intermediate transmitter station" of lines 11 and 12;

P) the "only a portion of said first completed full-screen video graphic image" that is recited in lines 20 and 21;

Q) the "one or more control signals" of line 24;

R) the "selective adaptation" process of the "intermediate transmitter station" that appears to be recited in lines 26-30 (e.g. support for the "when said remote transmitter station is adapted to...." of lines 26);

S) the "selective adaptation" process of the "at least one receiver station" of line 2 that appears to be recited in lines 31-34 (e.g. support for the "when said at least one receiver station is adapted to...." of lines 26);

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T) the organizing process recited in lines 26-30 in which the "at least one processor instruction" of line 13 is organized by said "remote intermediate transmitter station" of lines 6 and 7 when said "remote intermediate transmitter station" of lines 6 and 7 is "adapted" to do so;

U) the organizing process recited in lines 31-34 in which the "at least one processor instruction" of line 13 is organized by said "at least one receiver station" of line 2 when said "at least one receiver station" of line 2 is "adapted" to do so.

V) the "communication" of line 29 that is controlled by said "one or more control signals" of line 24 when said "remote intermediate transmitter station" of lines 6 and 7 is "adapted" to organize the at least one processor instruction; and

W) the "communication" of line 33 that is controlled by said "one or more control signals" of line 24 when said "remote intermediate transmitter station" of lines 6 and 7 is "adapted" to organize the at least one processor instruction.

22. With respect to claim 179:

I. The examiner maintains that it is still unclear as to where many of the "features" that are now being positively recited within claim 179 were described in the instant disclosure as originally filed. Being such, for each of the following listed "features", applicant is simply asked to point out exactly where the feature was described in the originally filed instant disclosure in the context of the method that is now being claimed:

A) the "video graphic presentation" recited in line 1;

B) the "receiver station" of line 2;

C) the "remote transmitter station" of line 3;

D) the "at least a first discrete signal" of line 4;

E) the "transmission" of line 3;

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- F) the "at least one graphic image" of lines 4 and 5;
- G) the step of "receiving" the transmission of line 3 from the "remote transmitter station" of line 3 as is recited in lines 3-5;
- H) the step of "passing" received video images to a video monitor as is recited in lines 6 and 7;
- I) the "displayed first completed full-screen video graphic image" that fills "the entire surface area" of a viewing screen as is recited in lines 9-11;
- J) the step of "displaying" the "series of images" that includes said "first completed full-screen video graphic image" as is recited in 8-11;
- K) the step of "detecting" said "[received] at least a first discrete signal" of line 4 (e.g. as is recited in line 12);
- L) the "at least one processor" of line 13;
- M) the step of "passing" said "[detected] at least a first discrete signal" to said "at least one processor" of line 13 (e.g. as recited in line 13);
- N) the "at least one control signal" of lines 15 and 16;
- O) the "second discrete signal" of line 15;
- P) the "information" of line 15 that is contained in the "second discrete signal" of line 15;
- Q) the "information" of line 14 that is contained in said "[passed] at least a first discrete signal" of line 13;
- R) the step of "organizing" that is recited in lines 14-16 wherein the "information" of line 14 is organized with the information of line 15 based on the "at least one control signal" of lines 15 and 16;
- S) the "organized information" of line 18;

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T) the "at least one processor instruction" of line 17 which comprises the "organized information" of line 18;

U) the "receiver station" of line 2 that responds to the "at least one processor instruction" of lines 17 which comprises the "organized information" of line 18 wherein:

1) said "organized information" was obtained by "organizing" "information" from a first passed "at least one discrete signal" with "Information" from a "second discrete signal" based on "at least one control signal";

V) the "displayed locally generated second completed full-screen video graphic image" that fills "the entire surface area" of a viewing screen as is recited in lines 26-27;

W) the "displayed locally generated second completed full-screen video graphic image" of line 26 which contains only a portion of itself ?????????????????????? (e.g. as is recited in lines 26-28);

X) the "locally generated second full screen video graphic image" that is recited in lines 21 and 22;

Y) the "portion" of "said first completed full-screen video graphic image" that is recited in lines 28 and 29;

Z) the "portion" of the locally generated second full screen video graphic image that is recited in line 21;

A1) the step of "passing" only said "portion" of the locally generated second full screen video graphic image to a video monitor (e.g. as recited in lines 20-22), based on the step of "responding" to said "at least one processor instruction" of lines 17-19, wherein:

1) said "at least one processor instruction" that was responded to comprised the "organized information" of line 18; and

2) said "organized information" of line 18 that comprised said "at least one processor instruction" was obtained by "organizing" "information" contained within the passed "at least one first discrete

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signal” with the “Information” contained within the “second discrete signal” based on the “at least one control signal” of lines 15 and 16;

B1) the the “displayed locally generated second completed full-screen video graphic image” of line 26 which contains only said portion of itself and only said portion of said first completed full-screen video graphic image” (e.g. as is recited in lines 26-30).

23. With respect to claim 118:

It is not clear where applicant’s instant disclosure as originally filed described the following:

A) The “information transmission” of line 2 which contains the first discrete signal of claim 116;

B) The “at least one control signal” of line 2 which was transmitted from the origination station of claim 116 to the intermediate transmitter station of claim 116 by being embedded within said “information transmission” of line 2;

C) the recited step of “embedding” of claim 118 in which the “at least one control signal” of claim 116 was embedded within the “information transmission” of line 2, which “information signal” contains the “first discrete signal” of claim 116, wherein the “embedding” of the “at least one control signal” occurred “before” the first discrete signal was transmitted;

D) The embedded “at least one control signal” of claim 118 which was effective at the remote intermediate transmitter station to both:

1) control the communication of at least one processor instruction when said remote intermediate transmitter station was adapted to organize the information contained within the first and second discrete signal; and

2) control the communication of the first discrete signal when the receiver station was adapted to organize the information contained within the first and second discrete signal.

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SECTION VII: (Preface to the Rejection of Claims Based on Prior Art Applied Under Sections 102 and 103).**A. "DISCRETE SIGNALS" OF TELETEXT PRIOR ART:**

When applying "prior art" against pending amended claims, it is both proper and fair for the examiner to draft a rejection based on the ordinary level of skill in the art that existed at the time of applicant's alleged invention. Being such, when applying the prior art of record against the pending amended claims, it is both proper and fair for the examiner to assume that one of ordinary skill in the art would have understood the way in which "standardized" Teletext transmission systems operated to format and distribute "pages" of Teletext data through TV networks. Namely, the examiner maintains that it should NOT be necessary for the examiner to provide teachings in order to explain/evidence the "basics of Teletext"; e.g. Teletext 101.

However, applicant continues to submit arguments which misrepresent the way in which "standardized" Teletext systems operated to convey Teletext data through conventional TV networks. Via such arguments, applicant not only imposes an unrealistically low level of skill onto section 102 and 103 issues, but applicant effectively places a heavy burden on the examiner to provide an education in what was already well known; e.g. to try to ensure that the teachings/showings of the applied Teletext "prior art" are considered in the context that they would have been read and understood by those of ordinary skill in the art at the time of applicant's alleged invention. For example, if a piece of applied Teletext "prior art" refers to Teletext "pages", there should be no need for the examiner to explain what such a Teletext "page" is, what it comprised, and how it conveyed its data/information. One of ordinary skill in the art would have most certainly known such facts! However, by "*playing dumb*" and alleging that Teletext "pages" were not comprised of "discrete signals", applicant has forced the examiner to provide explanations/showings which are (i.e. should be) unnecessary. This adds an appearance of complexity to rejections made under section 102 and 103 where there should be none. Here, it is interesting to note that much (if not most) of the "prior art" which has been submitted for consideration by applicant during the present prosecution is in fact Teletext "prior art", thereby indicating that the examiner is not the only person who recognizes the relationship that clearly exist between "extended" Teletext packet systems and the "SPAM" message packet system of applicant's own claimed invention(s). In submitting such prior art for consideration, applicant appears to be aware of these relationships too.

For clarity of the record:

The examiner maintains that one of ordinary skilled in the Teletext transmission art would have understood that substantially all (if not all) "standardized" Teletext transmission systems operated by:

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- 1) Breaking each complete displayable or non-displayable form of Teletext information down into a plurality of discrete “information portions” that can be conveyed via the available bandwidth;
- 2) Utilizing “discrete packet signals” to carry these created discrete information portions through a given TV network by embedding each of the “discrete packet signals” into a respective video line interval of distributed TV programming; and
- 3) Recovering desired ones of the complete displayable and non-displayable forms of Teletext information on the receiver side of the system via a Teletext decoder which functioned:
 - a) to receive the distributed TV signals containing the embedded “discrete Teletext packet signals”;
 - b) to separate the embedded “discrete Teletext packet signals” from the received TV signals;
 - c) to decode the separated “discrete Teletext packet signals” and to extract those “information portions” therefrom which correspond to a respective complete displayable or non-displayable form of Teletext information desired by the receiver side of the system;
 - d) to organize (e.g. re-organize) the extracted information portions so as to recover the desired complete displayable or non-displayable form of Teletext information; and
 - e) to use the recovered complete displayable or non-displayable form of Teletext information at the receiver side to:
 1. Instruct the receiver side of the system as to how to “locally generate” a displayable Teletext image when the recovered information represents a displayable image;
 2. Trigger equipment of the receiver side of the system to take certain action when the recovered information represents equipment control signaling;
 3. Load a computer/microprocessor at, or within, the receiver side of the system when the recovered information represents “Telesoftware”;

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4. Identify the TV program and/or the TV network of the programming currently being received; and
5. ETC,...

In the response filed on 1/28/02 in SN 08/470,571, applicant refutes the fact that one of ordinary skill in the art would have had such a basic understanding of "prior art" Teletext systems. Applicant goes so far as to characterize the examiner's position concerning the inherent existence of "discrete signals" within standardized Teletext transmission systems as only being "hypothetical" in nature [e.g. lines 4-9 on page 356 of the amendment filed in SN 08/470,571]. The examiner could not disagree more. Hence, via "APPENDIX B" of this Office action, the examiner attempts to establish a "floor" below which applicant's erroneous characterizations/misunderstandings/misrepresentations of the conventional Teletext "prior art" should not be allowed to sink.

B. "SPAM" OF APPLICANT'S ALLEGED INVENTION REPRESENTS LITTLE MORE THAN APPLICANT'S OWN VERSION OF AN "EXTENDED" TELETEXT TRANSMISSION SCHEME (AND APPLICATIONS THEREOF):

As best understood by the examiner, applicant's instant 1987 disclosure described a television distribution system in which digitally encoded "SPAM message" packets were generated by a SPAM signal source and embedded, preferably, into the vertical blanking interval (VBI) of TV programming that was provided from a TV studio (i.e. the network/originating TV station). The TV programming along with its embedded SPAM message packets were then distributed/transmitted from a network/originating TV station, via a television distribution network, to various "receiver stations" which were situated throughout the distribution network; i.e. wherein the term "receiver station" was used by applicant in a way that encompasses both "intermediate TV broadcast stations" and "ultimate household receiver stations". At one of the receiver stations, one of the "SPAM message" packets were received (i.e. extracted from the TV programming), identified, decoded, and processed or outputted by SPAM signal receiving/decoding circuitry. In the preferred embodiment, the SPAM signal receiving/decoding circuitry was implemented using software driven processors.

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As also described in applicant's 1987 disclosure, the SPAM message packets that were distributed by applicant's television distribution system carried information pertaining to a wide variety of control, monitoring, and messaging functions. More specifically, the information carried by the SPAM message packets could be used to: 1) to distribute display information to ones of the receiver stations; 2) to distribute monitoring information to ones of the receiver stations; 3) to distribute program identification codes to ones of the receiver stations; 4) to distribute cuing/triggering signals to ones of the receiver stations; 5) to distribute computer software to ones of the receiver stations; 6) to distribute commands to ones of the receiver stations; etc,...

The following is noted:

1) In the past, the examiner argued that applicant's SPAM message packets comprised little more than applicant's own version of conventional packetized Teletext data. At that time, applicant disagreed with the examiner's position arguing that term "Teletext" referred **only** to the transmission of digitally coded character/graphics codes. Strictly speaking, applicant was correct. What the examiner should have stated was that applicant's SPAM message packets comprise little more than applicant's own version of conventional digitally encoded "insertion/ancillary signaling"; i.e. conventional "insertion/ancillary signaling" to "Teletext data" was known to have belonged. While the examiner is willing to accept/entertain applicant's strict interpretation of the term "Teletext", the examiner nonetheless points out that it was notoriously well known in the art to have "extended" the use of conventional Teletext data packets within conventional Teletext distribution systems to carry information/data other than digitally coded character/graphics codes; i.e. to have carried ancillary data other than "Teletext data" as strictly defined by applicant (e.g. computer programs/software, e.g. *Telesoftware*, being but one example of these know Teletext packet "extensions") [SEE Appendix B attached hereto]. Applicant's SPAM packets appear to be little more than applicant's own version of such an "extended" Teletext system; e.g. a fact which seems self evident when one compares the content and packet structure of applicant's own "SPAM" messages shown in figures 2E-2K of applicant's instant disclosure with the content and packet structure of conventional extended Teletext systems (e.g. such as that which was discussed in APPENDIX B of this Office action). Being such, it appears that the arguments previously presented by applicant merely focussed on the technicality those data packets of an "extended" Teletext distribution

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system which carry *other types of information* are not, strictly speaking, Teletext data packets; i.e. they do not carry character/graphics codes. So what!

The fact remains that the generation and embedding of digitally encoded packetized data within the VBI of distributed TV programming, e.g. in the form of digitally encoded "insertion/ancillary signals" including packetized "Teletext data", was notoriously well known in the art at the time of applicant's alleged invention. It remains the examiner's position that the generation and embedding of SPAM message packets into the VBI of distributed TV programming, as described in applicant's own 1987 disclosure, represents applicant own variation on this notoriously well known theme. The examiner is not saying that applicant's own variation/application/implementation of such insertion/ancillary systems are necessarily unpatentable based solely on this fact. However, the examiner is again stressing the point that the applied prior art of record, e.g. particularly the "Teletext" prior art, is far more closely related to applicant's alleged invention than applicant is willing to admit. the terminology used throughout applicant's claims and disclosure suggest. Likewise, it is believed that the prior art of record, e.g. particularly the "Teletext" prior art, is also far more closely related to applicant's alleged invention than applicant has ever been willing to acknowledge ⁶³. In view of this, the examiner maintains that extreme care is needed as one attempts to decipher the scope/meaning of applicant's pending claims in the search of recited differences that do more than give an appearance or impression of patentability. To this point, the following is noted:

1) Many of applicant's claims recite various "discrete signals". As set forth in Appendix A of applicant's response filed on 6/7/2000 in SN 08/470,571, all of the various "discrete signals" recitations are allegedly supported solely by the fact that the SPAM signals of his 1987 disclosure comprised: discrete words, discrete packets, discrete sequences of packets, discrete header portions, and discrete information portions. The examiner maintains that, by giving such a broad meaning to the recited "discrete signal" terminology, the recited "discrete signal" terminology does little to nothing to overcome/avoid the applied prior art of record because the digitally encoded "insertion/ancillary signals", e.g. packetized

⁶³ Obviously the reason so much Teletext "prior art" art has been made of record by all involved!

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"Teletext data" of the applied prior art, implicitly comprised: discrete words, discrete packets, discrete sequences of packets, discrete header portions, and discrete information portions too [see APPENDIX B attached hereto]. Hence, the various "discrete signals" recitations of the claims appear to be nothing more than a *straw man*.

2) Many of applicant's claims recite pluralities of **separate** steps for embedding, transferring, transmitting, and receiving **separately** recited "discrete signals", "instructions", "instruction signals", and "control signals". However, when specifying where these **separate** steps allegedly derive support from his 1987 disclosure [see Appendix A of applicant's latest response], applicant points to the **same** disclosed "step" (?) in which the SPAM messages themselves were generically described as being originated, embedded, transferred, transmitted, and then received. Thus, based on applicant's citation of alleged support from Appendix A of applicant's latest response, it appears to be applicant's position that all of these separately recited steps from applicant's claims were obviously/implicitly described in his 1987 disclosure by the described generation, embedding, transferring, transmitting, and receiving of the SPAM messages themselves. Specifically, applicant appears to allege that any step/process which was described as having been performed on the SPAM messages themselves was also, implicitly, performed separately on each component thereof (wherein the SPAM messages themselves comprised different discrete signals, different instruction signals, different instructions, and different control signals). More specifically, it appears to be applicant's position that because the disclosure described the generation, embedding, transferring, transmitting, and receiving of SPAM messages, said disclosure implicitly described the generation, embedding, transferring, transmitting, and receiving of the different discrete signals, different instruction signals, different instructions, and different control signals which comprised the SPAM messages [e.g. note that Appendix A of applicant's last response alleges that support for many of the separately recited steps and signals (i.e. instructions and control signals) is derived the same step of processing the same "second series of instructions"]. Overlooking the issue as to

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whether this kind of ***implied*** support meets the “immediately discernible” description requirement of section 112-1 (in the examiner’s opinion, it does not), it is evident that **separately** reciting the same disclosed step/process numerous times in a single claim does little to nothing to overcome/avoid the applied prior art of record because the digitally encoded “insertion/ancillary data” of the applied prior art, e.g. packetized “Teletext data”, also obviously/implicitly comprised different instructions, different control signals, different instruction signals, and different discrete signals and therefor, following applicant’s own reasoning and justification, also obviously/implicitly comprised **separate** steps of generating ,embedding , transferring , transmitting , and receiving each of the insertion/ancillary signal components. Again, reciting pluralities of **separate steps** which simply describe the same steps of processing and transmitting generic SPAM message packets constitutes another *straw man* (i.e. albeit, a convoluted and confusing *straw man*);

3) Many of applicant’s claims recite that each receiver station “includes a receiver, a signal detector, a processor, and an output device.” The examiner maintains that such structure is part of any/all TV receivers and is also part of any/all digitally encoded insertion/ancillary signal receivers/decoders; i.e. any/all TV receivers and insertion/ancillary signal receivers/decoders must have comprised circuitry for receiving the transmitted/broadcasted signals, circuitry for demodulating/detecting the transmitted/broadcasted signal, circuitry for processing the demodulated signals; and circuitry for outputting/displaying data/information based on the received signals. Thus, the examiner maintains that these recitations also constitute nothing more than *straw men* [for example, see “EXAMPLE #20” in the second paragraph under the heading “SECTION v” of this Office action]

4) Many of applicant’s claims include words or phrases which initially appear to be significant but, upon close inspection, add nothing of substance to the claim(s). For example: the recitation of “at a particular place and time” (i.e. any signal that is received will be received at a particular place and time); the recitation of a

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“target” processor (i.e. any processor which receives information directed to it is at least *targeted* by that information); the recitation of “before a specific time” (i.e. all signals must be transmitted from the transmission side before “some specific time” at which they are received on the receiver side); etc,... Simply more *straw men*!

C. APPLICANT’S CURRENTLY PENDING CLAIMS ARE NOT ENTITLED TO THE 11/3/81 FILING DATE FOR REASONS WHICH HAVE BEEN FULLY ADDRESSED ABOVE AND PREVIOUSLY.

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SECTION VIII: Section 103 issues:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

1) Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "Teletext/Viewdata LSI" by Harden.

As is shown in figure 1, Harden disclosed a receiver station circuitry which was capable of receiving and processing "remotely originated" Teletext and/or Viewdata data along with "locally supplied data", e.g. the bit map data that is locally stored within the character ROM of figure 4, in order to "locally generate" an image for display (e.g. the R,G,B outputs of figure 4 represent the such a locally generated image). The receiver station circuitry that is disclosed by Harden includes, when so desired, fast switching circuitry for providing a "Mixed" display mode in which all of the characters contained within the locally generated image are inset within, e.g. displayed simultaneously with, the video portion of the TV signal that is being received from a remote video source (i.e. a remote TV station). When operating to receive and display Viewdata data, the "locally generated" image inset is generated by:

- 1) "Originating" a page "request" at the receiver station and "communicating" this page request, via the "MODEM" of figure 1, from the receiver station to a "remote data source" that includes a Viewdata computer;

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[see: the discussion in part "(a)" under the heading "Viewdata" in the first column on page 353 of the publication; the last 4 lines in the second column on page 353 of the publication; the fourth full paragraph of the first column on page 356 of the publication; etc,...]

2) In response to the communicated page "request", the receiver station circuitry receives "remotely originated" Viewdata data, representing the requested Viewdata page, from the Viewdata computer via the "MODEM" of figure 1; *[see: the discussion in the first four lines under the heading "Viewdata" in the first column on page 353 of the publication; the discussion in the second paragraph under the heading "Data Reception" in the second column on page 353 of the publication; etc,...]*

3) The received "remotely originated" Viewdata data is then processed, along with "locally supplied data"⁶⁴, by the circuitry of figures 1 and 4 in order to create a locally generated image for display on the TV receiver *[note: the discussion in part "3." under the heading "A REAL SYSTEM" in the second column on page 354 of the publication, etc,...]*

whereby, this locally generated image was at least obviously displayed as a inset image over (e.g. "simultaneously" with) TV programming received from a remote video source via the optional "mixed" mode of operation that was explicitly described in the last 3 lines on page 356 of the publication.

2) Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-028691].

I. The Showing of Oono et al.:

Oono et al. has been cited for its showing of a conventional two-way "interactive" Teletext system which included the "video apparatus" of figure 3. The Teletext system "at least obviously"⁶⁵ comprised:

A) the "video apparatus" of figure 3 which included:

⁶⁴ The "locally supplied data" label is so broad and undefined that it is at least met by the locally supplied bit map data that is contained within the ROM of figure 4 and that is processed (e.g. by "rounding logic" of figure 4) along with the received Viewdata data (e.g. processed at the VIEWDATA PROCESSING" block of figure 1) in order to generate the "locally generated" image (e.g. represented by the R,G,B output of figure 4).

⁶⁵ e.g. given an unrealistically low level of skill in the art as has been portrayed by Applicant's arguments.

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1. a user/system controlled switch (5) which operated to selectively pass to output (a) one of the three signals received at three respective inputs thereto (V1, V2, V3), wherein

a. Input V3 comprised the video portion of a received TV signal;

b. Input V1 comprised a locally generated Teletext image; and

c. Input V2 comprised the video portion of the received TV signal onto which the locally generated Teletext image had been overlaid via mixer (6) [e.g. a conventional "mixed" display mode];

2. a keyboard (9) which, as shown in detail in figure 4, included four keys (13-16) which could be manually actuated by the user in such a way as to configure said user/system controlled switch (5) so as to selectively output:

a. the video portion of the received TV signal (V3) via the actuation of key (16);

b. The locally generated Teletext image (V1) via the actuation of key (14); or

c. The "mixed" signal from mixer (6) via the actuation of key (15);

[SEE: lines 17-23 on page 6 of the translation; lines 17-20 on page 7 of the translation; etc,...]

3. a keyboard (9) which, as shown in detail in figure 4, included three keys (11, 17, 22) which could be manually actuated by the user in such a way as to "**originate**" a "**request for data**" which was then "**communicated**" to a "**remote Teletext data source**" via a telephone interface (10) [note the last four lines on page 7 of the translation], wherein the data which was requested by this request for data comprised any one of the following three data types:

a. *Telesoftware* type data;

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[e.g. see the discussion that begins "In the case of software data..." in line 11 of page 8 of the translation]

b. Teletext image data that was to be overlaid over the video portion of the received TV programming in the conventional "mixed" display mode; and

[e.g. see the discussion which begins "In the case of data to be superimposed..." in line 18 of page 8 of the translation]

c. Teletext image data that was to be displayed by itself and not as an overlay;

[e.g. see the discussion which begins "in the case of picture data of one screen..." in line 21 of page 8 of the translation];

[e.g. lines 14-18 on page 5 of the translation]

B) The **"remote Teletext data source"**, not shown in the figures, which:

1. received the **"request for data"** which was **"communicated"** to it from said **"video apparatus"** of figure 3; and

2. in response to the received request, transmitted the requested data to said **"video apparatus"** of figure 3 in the form of a plurality of "discrete packetized signals" (see figure 2) which were inserted into vacant lines occurring in the VBI of broadcasted TV programming (see figure 1), wherein each of the plurality of "discrete packetized signals" of figure 2 comprised:

a. Controlling portion (E) which, among other things, identified the type of information being transmitted within the packet (e.g. "Telesoftware" data ; Teletext image data which was to be displayed in the "mixed" display mode; Teletext image data which was to be displayed alone, etc,...);
[e.g. lines 1-6 on page 5 of the translation]

b. a terminal address portion (D) which identified the requesting **"video apparatus"** to which the packet was being sent; and
[e.g. line 21 on page 5 of the translation]

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c. a data carrying portion (F) which carried the requested data itself;
[e.g. lines 14-18 on page 5 of the translation]

C) Said **"video apparatus"** of figure 3 which further included:

1. receiving circuitry (1,2) for **"receiving"**, from the **"remote Teletext data source"**, the "discrete packetized signals" of figures 1 and 2;

2. processing circuitry (3) for **"processing"** the "received" "discrete packetized signals" of figure 2, in accordance with **"locally supplied terminal address data"** (e.g. as discussed in lines 8-11 on page 8 of the translation), in order to **"locally generate"** a requested Teletext image which was then **"simultaneously displayed"** as an overlay over the video portion of the received TV programming; e.g. when the requested data represents such overlay data.

[e.g. SEE: lines 14-18 on page 5 of the translation; lines 2-11 on page 8 of the translation; and lines 18-21 on page 8 of the translation].

3) **Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Poirier [US #4,533,943].**

Poirier disclosed a video presentation system which comprised: the **"video apparatus"** that is shown in figure 2; and a **remote source (e.g. 5 of figure 3) of video(@53) and data(@50)**. The following is noted:

1) The video apparatus of figure 2 **"originated a request"** for dialogue which functioned to initiate/**"enable"** the **"display"** of a desired combined video presentation **"content"** via the CRT (112) of said video apparatus ;
[e.g. lines 35-54 of column 6];

2) The video apparatus of figure 2 **"communicated said request"** for dialogue to the "remote source of data" (5 of figure 3);
[e.g. lines 54-68 of column 6; and lines 1-4 of column 7]

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3) In response to the communicated request for dialogue, "DIDON" encoded Videotext data, of the ANTIOPE Videotext language, is **remotely originated** by said "remote source of data" (5 of figure 3) wherein, in accordance with "standardized" Teletext practice, this remotely originated data comprises a plurality of **discrete "digital channels"** which have been multiplexed into a plurality of **discrete "packets"** such that each of the discrete packets can be conveyed as **discrete packet signals** within a vacant/free line periods of transmitted video programming;
[e.g. lines 18-22 of column 7; and lines 38-56 of column 5]

4) Said video apparatus of figure 2 comprises a "DIDON" decoder (121 of figure 2) for **"receiving"** the remotely originated "DIDON" data and for **"processing"** this remotely originated "DIDON" data, along with an "channel address" data **"locally supplied"** to the decoder via control unit (124), for the purpose of having **"locally generated"** (e.g. @ ANTIOPE decoder 122) a Videotext image which was to be displayed;
[i.e. lines 3-24 of column 6; lines 18-22 of column 7; and lines 42-48 of column 7]; and

5) Said video apparatus of figure 2 comprises a combiner (118 of figure 2) and a CRT (112 of figure 2) for **passing** and **simultaneously displaying** the locally generated Videotext image and a video signal received from the remote video source (5 of figure 3), wherein the Videotext image can be displayed as an overlay or as a picture insert.
[e.g. lines 22-41 of column 7; and lines 15-33 of column 8]

4) Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over the "VSA" publication, the publication "Teletext Systems: Considering the Prospective User" by Cicero and GB Patent #959,274 to Germany.

I. The "VSA" Publication:

The "VSA" publication has been cited for its clean illustration of a notoriously well known local TV station configurations (see the figure labeled "TELETEXT"). Specifically, the

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“VSA” publication has been cited for its illustration of the following Local TV station structure:

- A) An input which received network TV programming from a Network TV station wherein the network TV programming carries an embedded network Teletext service [e.g. @ “NETWORK VIDEO WITH DATA”];
- B) A program switcher to which is provided the received network TV programming and various locally generated live and recorded TV programs and commercials, wherein said switcher is controlled so as to selectively pass/communicate the received network TV programming, locally generated TV programming, and locally provided TV commercials thereby effectively inserting the local programming and commercial into the network TV programming prior to retransmission as a combined TV signal output [e.g. “MASTER CONTROL SWITCHER”/“LOCAL COMMERCIAL INSERTIONS”];
- C) A Teletext insertion point which selectively functions to selectively pass the received network Teletext service to the combined TV signal output and/or to replace portions of the network the network Teletext service with a locally provided Teletext service [e.g. “TELETEXT INSERTION POINT”];
- D) A TV transmitter which received and locally transmits the combined TV signal output, embedded with the passed network Teletext service and/or the locally generated Teletext service, to local household receivers; and
- E) TV receiver stations located within said local household which receive the transmitted combined TV signal and display the TV programming and/or received Teletext services [e.g. “TV WITH DECODER”].

As was addressed in the last Office action, Teletext data inherently represents “instruct signal” which can instruct TV receiver stations to “locally generate” an corresponding Teletext image for display/presentation [SEE Example “1)” under “Section II” in the Office action mailed on 8/27/01 in SN 08/470,571].

II. Differences & Obviousness:

Claim 80 differs from the conventional local TV station structure illustrated in the “VSA” publication only in that:

- A) The “VSA” publication does not provide details as to how the receiver station displayed the received combined signal output whereas claim 80 indicates that the that the locally generated images were simultaneously displayed with the TV

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programming. The publication by Ciciora evidences the fact that it was well known to have been desirable to have included program related Teletext pages within conventional Teletext services and, when providing such program related pages, that it conventional to have implemented the receiver station in a way which allowed the locally generated "program related" Teletext images to be overlaid onto the TV programming with which they are related (i.e. to be "simultaneously" displayed) [note lines 15-27 under the heading "Supplementary Overlays" in the second column on page 848]. The examiner maintains that it would have been obvious to one of ordinary skill in the art for the network Teletext service of the VSA publication to have desirably included such program related pages and, therefor, for the receiver station to have included means for providing a "mixed" display mode in which the locally generated program related images would be overlaid onto the TV programming.

B) The "VSA" publication does not provide details as to how the "MASTER CONTROL SWITCHER" is controlled so as to insert locally generated TV programming and commercials into the network TV programming whereas claim 80 indicates that the "communication" of the network programming by the local station is controlled by a "control signal" that is transmitted to it from the network TV station. Germany evidences the fact that it was both known and desirable to have inserted cuing control signals into the network TV programming to automate control of the commercial switching/insertion process at the local stations; i.e. to cause the network programming to be automatically passed/"communicated" by the local station during first specific periods of time and to cause the local programming/commercials to be "communicated" in place of the network programming during other specific periods of time. The examiner maintains that it would have been obvious to have provided such cuing control signals with the network programming of the "VSA" publication to automate the commercial insertion process thereby providing the "VSA" system with all the advantages discussed by Germany.

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5) Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB Patent #959,274 to Germany in view of the publication "TELETEXT SIGNAL GENERATION EQUIPMENT AND SYSTEMS" by Mothersole and the publication "Teletext Systems: Considering the Prospective User" by Cicero.

I. The showing of Germany:

Germany has been cited for it showing of a system in which:

A) "Control signals" are embedded into network TV programming at the originating network TV station (e.g. via the circuitry of figure 2);

B) The network TV programming containing the embedded control signals is transmitted to a plurality of local "intermediate" TV stations; and

C) The "control signals" are extracted from the network programming received at the respective local intermediate stations (e.g. via the circuitry of figure 1) and these extracted control signal are used to control the passing/"communication" of the network programming by the local station;

whereby the network programming that is passed/communicated by each of the local station is rebroadcast to a plurality of local household receiver station and that network programming which is not passed/communicated is replace by local TV programming/commercials.

II. Differences & Obviousness:

Claim 80 differs from the conventional TV station structure disclosed by Germany only in that Germany does not explicitly indicate whether the passed/communicated network TV programming comprised, e.g. in addition to the explicitly described "control signal", an "instruct signal" (e.g. such as a "page" of conventional TELETEXT data) which caused an image (e.g. the corresponding Teletext image) to be locally generated and simultaneously displayed over the network TV programming at the household receiver stations.

The following is noted:

A) Mothersole has been cited because it evidences that fact that it was notoriously well known in the art for the network TV stations, e.g. of the type described in Germany, to have embedded network Teletext services within the network TV programming that was transmitted to the plurality local TV stations [note the first four lines under the heading "Teletext Networking" on page 348]. Thus, while not explicitly described in

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Germany, it certainly would have been no surprised to one of ordinary skilled in the art to have found that the network programming in Germany carried an embedded network Teletext service too; i.e. it would have been obvious for such to have been true.

The publication by Ciciora evidences the fact that it was notoriously well known and desirable for such conventional Teletext services to have included program related Teletext pages with their service and, when providing such program related pages, that it conventional to have implemented the receiver station in a way which allowed the locally generated "program related" Teletext images to be overlaid onto the TV programming with which they were related (i.e. to be "simultaneously" displayed) [note lines 15-27 under the heading "Supplementary Overlays" in the second column on page 848]. The examiner maintains that it would have been obvious for the network Teletext service provided in the "modified" system of Germany to have desirably included the program related Teletext page data of the type described by Ciciora.

6) Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over "standardized" Teletext system of the type that is set forth in the publication contained in "APPENDIX A" of this Office action.

A) The Teletext system set forth by the publication of APPENDIX A has been addressed/discussed in "APPENDIX B" of this Office action; e.g. see APPENDIX B of this Office action for such details. Being such, the following is noted:

1) As was notoriously well known, the exemplified "standardized" Teletext format set forth in the publication provided a "Boxing" feature whereby "locally generated" images, obtained from parts of a transmitted Teletext pages, were inset into the displayed images of the normal TV programming broadcasts [SEE: part 11.5.8. on page A-4 of APPENDIX A]. Examples of the types of "locally generated" images which were conventionally displayed using this "Boxing" feature included:

- a) "News Flash" pages; and
- b) program related "Sub-Title" pages.

[SEE: parts 11.1.1 and 11.1.3 on page A-3 of APPENDIX A].

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2) As was notoriously well known in the art, the exemplified "standardized" Teletext format set forth in the publication also provided equipment control data bytes which could be used by the Television Network or by the Teletext Service to remotely control (e.g. trigger) specific operations to be performed by downstream equipment [SEE: the third paragraph on page A-1 of APPENDIX A which begins "Optional features..."; part 13.5 on page A-5 of APPENDIX A; and packet 4/1/30 on page A-18 of APPENDIX A].

B) The examiner maintains that it was notoriously well known in the art for Network TV stations to have embedded "standardized" Teletext transmissions, of the type set forth above, within the VBI of their broadcasted Network TV programming. The examiner maintains that it would at least have been obvious to one of ordinary skill in the art, for such Network TV stations to have used the equipment control bytes of such "standardized" Teletext services to have remotely controlled the flow/communication of the broadcasted Network TV programming through their respective remote "intermediate" local affiliate TV stations. For example, the examiner maintains that it would have been obvious to have used these control bytes to have performed any one of the following notoriously well known control functions:

1) equipment control bytes for automating the program switching process at their respective local affiliate stations;

2) equipment control bytes to automatically control non-duplication switchers at their respective local affiliate stations;

3) equipment control bytes for controlling the unattended recording of Network provided programming by VCRs located at the respective local affiliate station;

4) etc,...

[note APPENDIX D of this Office action].

C) Given the above, the examiner maintains that:

1) The "transmitting" step recited in lines 4-9 of claim 80 is met by that portion of a Network's standardized Teletext service which transmits the "instructions" used to locally generate and displaying

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"boxed" images over the normal TV programming at household TV receiving stations; and

2) The "transmitting" step recited in lines 10-13 of claim 80 is met by that portion of a Network's standardized Teletext service which transmits the equipment control bytes to locally affiliated TV stations, e.g. stations which are located "intermediate" to the Network station and the household stations, to control the communication/flow of the Network's programming there within.

7) Claims 56, 84, 93, 110, 123, 162, 167, 171 and 179 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seth-Smith et al. [US Patent #4,890,321].

THE SHOWING OF SETH-SMITH ET AL.:

I. As is shown in figure 1, Seth-Smith et al. disclosed a multimedia transmission system which comprised:

A) A first transmission station (10) which included:

1. Circuitry (12) for assembling Teletext messages;
2. Circuitry (14) for inserting the Teletext messages into the VBI of TV programming so as to create a combined signal;
3. Circuitry (16) for adding "system data" to the combined signal and for encrypting the video, audio, and Teletext portions of said combined signal in order to create an encrypted combined signal; and
4. An antenna (18) for transmitting the encrypted combined signal; and

B) An intermediate transmission/relay station (20) which conveyed the transmitted encrypted combined signal from the first transmission station to a plurality of receiving stations, only one of which is shown in figure 1; and

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- C) Each receiving station (8,22,24) which included:
1. An antenna (18) for receiving receiving the conveyed encrypted combined signal;
 2. A receiver for processing the received encrypted combined signal; and
 3. A return link (8) for conveying information/queries/requests back to the transmission side of the system.

II. As shown in figure 5 of Seth-Smith et al., the combined signal that was conveyed by the multimedia transmission system of figure 1 comprised three different kinds of packetized signaling which was carried within lines 3-13 of the VBI of the TV programming. These three different kinds of packetized signaling respectively carried:

A) "Service data", conveyed by line 3 of the VBI, which represented data/information which was to be used system wide, wherein the data/information:

1. Had a content which was changed by the system over every 16 field periods of the TV programming;
2. Was too extensive in volume to be carried within a single discrete packet and was therefor conveyed as three discrete packet signals- i.e. "Packet A" signals, "Packet B" signals" and "Packet C" signals- each of which was repeatedly transmitted 5 times during each of the 16 field period of the TV programming (note: figure 5; lines 18-33 of column 10; figure 8; and figures 10-12);

B) "Addressed data", conveyed by lines 4-8 of the VBI, which comprised data which was only to be received by an addressed one (or addressed ones) of the receiver stations [note: figures 5 and 13]; and

C) "Teletext data", conveyed by lines 9-13 of the VBI, which comprised "standardized" Teletext pages [SEE figures 5 and 15 (note Appendix B of this Office action)].

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III. As shown in figure 17 of Seth-Smith et al., each receiver of each receiving station included:

- A) A pre-programmed microprocessor (@ 114);
- B) A "Microprocessor and Teletext Support (MATS)" circuit (122);
- C) A video descrambler (162);
- D) An audio descrambler (158);
- E) A character generator (126); and
- F) A signal mixer/combiner (166).

With respect to the figure 17 showing, Seth-Smith et al clearly indicates that combiner (166) operated to overlay/inset the "locally generated" images/messages that were being provided from character generator (126) over/into the video signals which were being provided from video descrambler (162) [SEE: lines 14-18 of column 21; and lines 43-52 of column 23]. However, as was notoriously well known in the Teletext art, this disclosed "mixed" mode of display actually appears to have been user selectable in view that the Teletext data being conveyed by the system provides for a system controlled "boxed" display mode too [note lines 42-46 of column 19]. The point being that the display of the receiver generated images over received TV programming was at least obvious, if not inherent, in the teachings of Seth-Smith et al.

IV. As shown in figure 18, each of the receivers of the Seth-Smith et al system operated:

- 1) To receive the discrete packet signals which comprise the VBI data that is contained within received TV programing (@152);
- 2) To detect those of the received discrete packet signals (@ figures 10-12) which contain "service information" and those of the received discrete packet signals (@ figure 13) which contain "addressed information" targeted to specific receivers (@122);

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3) To organize the detected service information and the addressed information and to provide this organized information to a storage device for storage therein (@124);

4) To compare (@122) the address of the stored addressed data to the locally stored receiver/user address (@175) so as to detect all of the addressed information that is specifically targeted to the instant receiver;

5) To provide (@172) the targeted addressed information to the local MP for processing thereat;

6) To use a locally stored receiver/user specific "secret serial number" (@116) to decrypt (@176) the provided targeted information (@172) and to obtain various types of "receiver/user specific data" which is then locally stored within a memory of the MP (@116), including: a "KOM" decryption key (@178); receiver/user specific Teletext page numbers which identify receiver/user Teletext messages (@190); receiver/user specific Feature and Tier enabled information (@116); user/receiver specific credit availability information (@116); etc,...;

7) To provide (@178) the stored service information (@124) to the local MP for processing thereat;

8) To use the locally stored "KOM" (@182) to decrypt (@174) the provided service information;

9) To process (@184 and 188) the decrypted service information in accordance with user inputs (@112) and other stored receiver/user specific information (@116) so as to obtain a wide range of signals which are outputted by the MP to control the receiver station [note: lines 10-68 of column 25], wherein these outputted signals included:

A) Teletext page decryption keys (@156) for allowing only authorized one of encrypted Teletext pages to be received (@152), decrypted (@198); stored in a display memory (@124), and outputted to a character generator (@126) so as to locally generate a corresponding Teletext images for display on the local display device (@128), wherein these authorized Teletext pages include:

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1. Received Teletext pages which carry messages specifically targeted to the instant receiver as identified by the locally stored receiver/user specific Teletext page numbers (@190) which were obtained from the decrypted addressed information provided @ 172; and
2. Received Teletext pages of a "pay-Teletext" service which are requested by user inputs (@112), provided that the requested pages falls within the enabled Tier/Feature levels as determined by feature enabled circuitry (@188) based on user specific Tier/feature enabled information received and stored at 116; and
3. Received Teletext pages which represent blank "templates" to which are added (@122) locally stored/provided "user specific data" (@204) so as to create a completed user specific Teletext page (@200); and
4. Received Teletext pages which represent various menu's.

Again, as noted in part III of this paragraph, the examiner maintains that the Seth-Smith et al showing at least evidenced the obviousness of having overlaid/inset (@ 166 of figure 17) any one of these produced Teletext pages over/into the descrambled video programming (@ 162 of figure 17) [SEE: lines 14-18 of column 21; and lines 43-52 of column 23].

SETH-SMITH ET AL. APPLIED:

A) With respect to claim 56:

As has been noted above, Seth-Smith et al disclosed a "video apparatus" for displaying both descrambled video signals and locally generated Teletext images, wherein:

- A) A "request" for authorization to "enable" a given display "content" to be displayed, e.g. images of a "pay-Teletext" service, was "originated" by the "video apparatus" (24 of figure 1) and "communicated" (via 8 of figure 1) to a remote data source (@ 10 of figure 1);

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[note: lines 17-25 of column 7; and lines 55-62 of column 22]

B) In response to the communicated request, said video apparatus **“received”** various types of **“remotely originated”** addressed data from the remote data source, e.g. specifically that data of figure 13, which served as the basis for authorizing the display of the pages which belonged to a the “pay-Teletext” service;

C) The video apparatus then **“processed”** the **“remotely originated”** data along with **“locally supplied data”**, e.g. the remotely originated data of figure 13 was processed along with a locally stored/supplied “secret serial number” at 176 of figure 18, to obtain and store receiver/user specific Tier and Feature enabled information (@116 of figure 18), wherein the stored Tier and Feature enabled information was used (@ 114, 122, and 126) to control/authorize the **“local generation”** (@ 126) of user requested “pay-Teletext” images;

D) These locally generated “pay-Teletext” images were then displayed on the display device (@ 128 of figures 17 and 18), at least obviously (NOTE: parts III and IV of this rejection; lines 14-18 of column 21; and lines 43-52 of column 23), as an overlay/inset to remotely broadcasted received video programming.

B) With respect to claims 84, 93, 110, 123, 162, 167, 171 and 179:

The VBI data of the Seth-Smith et al system included pages of Teletext data [see figure 5]. Each page of data comprised a sequence of ASCII code which broken up into a plurality of portions (e.g. each portion corresponding to a complete line or row of character data) and the portions were then conveyed through the system within a respective plurality of, e.g. up to twenty or more, “discrete packetized signals” [Note: figure 15; lines 28-40 of column 9; lines 15-33 of column 19; lines 8-14 of column 20]. On the receiver side of the system, the receipt of a desired page of Teletext was detected and its “discrete packetized signals” were grabbed/deciphered/decoded in order to recover the original sequence of ASCII codes. This recovered sequence of codes was then stored, in sequence, within a display memory [note: lines 4-14 of column 21]. This stored ASCII code were read out of the display memory, in sequence, and provided to a character generator which, in response thereto, locally generated the pixel data needed to generate a displayable Teletext image [note lines 14

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and 15 of column 21]. This locally generated Teletext image (e.g. the displayable pixel data) was then "integrated"/"combined" with a received video signal so as to have produce, at least obviously, a combined image [note: lines 14-18 of column 21; and lines 43-52 of column 23]. Given the above, the following is noted:

A) The Seth-Smith et al system received the video at a transmitter station as claimed [note element 14 of figure 1];

B) The Seth-Smith et al system delivered the video to a transmitter [note elements 14, 16, and 18 of figure 1];

C) The Seth-Smith et al system received the assembled pages of Teletext data at said transmitter station [e.g. at elements 12 and 14], wherein each of said assembled pages comprised "first", "second", "third", etc... "discrete packetized signals" each of which carried information representing only a portion of a complete processor instruction set;

D) The Seth-Smith et al system transferred all of the discrete packetized signals to said transmitter [note elements 14, 16, and 18 of figure 1];

E) Said transmitter (18 of figure 1) transmitted said video and said discrete packetized signals to at least one receiver station (e.g. elements 8, 22, 24 of figure 1); and

F) Based on a wide assortment of user specific data previously stored at the receiver station [e.g. the user specific data stored within EEPROM 116 of figure 18], said receiver station processed the VBI

Teletext/message data by:

- 1) receiving a plurality of discrete packetized signals of VBI data;
- 2) recovering a plurality of respective portions of information therefrom;
- 3) organizing recovered information portions back into a complete processor instruction set;
- 4) using said complete processor instruction set to locally generate pixel data of a displayable Teletext image; and
- 5) integrating/combining the locally generated image with images of a received video/TV broadcast for simultaneous/"mixed" display thereat.

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> Additionally, with respect to the recitations of **claims 123 and 162**, the packets of the "addressed data" of Seth-Smith et al included receiver/decoder targeted "page identifiers" for enabling ones of the receivers/decoders to identifying and receive personalized Teletext message pages which were respectively targeted thereto [note; lines 44-53 of column 3; lines 31-41 of column 16; lines 27-37 of column 17; etc,...].

> Additionally, with respect to the recitations of **claims 167, 171, and 179**, the following is noted:

- 1) In view that the video/TV signal being broadcast in Seth-Smith et al represented conventional TV programming, the examiner maintains that one of ordinary skill in the art would have recognized the fact that this programming could obviously be "graphic" in content (e.g. a computer generated and/or animated cartoon); and
- 2) Alternatively, Seth-Smith et al disclosed an embodiment in which "graphic" images representing "templates" were downloaded to the receiver stations, combined with "graphic" images representing locally stored/processed user specific data, and displayed as a combined Teletext image; e.g. which could be displayed, at least obviously, integrated within the broadcasted video/TV programming via some type of "mixed" display mode [note: lines 14-18 of column 21; lines 38-58 of column 21; lines 1-20 of column 4; lines 57-62 of column 32; etc,...].

8) Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-028691] for the same reasons that were set forth for claim 56 above. The following is noted:

A) The examiner maintains that one of ordinary skilled in the Teletext art would have recognized the fact that the requested overlay data described in Oono et al. easily comprised more bytes of data than could be transmitted/conveyed within a single vacant line of the broadcasted TV programming (e.g. more that 40 bytes of data/instructions). When such was the case, it would have been necessary to have broken the requested data up into a plurality of data portions so that the portions

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could then be transmitted/conveyed within a respective plurality of discrete packets which could fit within respective vacant lines of the TV programming as appears to be illustrated in figure 1 of Oono et al.; e.g. such having been the notoriously well known *modus operandi* around which "standardized" Teletext were conventionally founded/built [note part "A)" under "SECTION VIII" of this Office action]. Once transmitted/conveyed to the receiver side, these portions would have had to have been "organized" back into the full set of overly instructions data which was needed to instruct processor 3 on how to have locally generated the desired image which was to be overlaid; and

B) The examiner maintains that the stored "user specific data" of the claim corresponds to the locally stored "terminal address" described in Oono et al. In that each terminal, and thus each stored terminal address, was associated specifically to the user, or users, located within its given household receiving station location.

9) Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "A Public Broadcaster's View of Teletext in the United States" by Gunn et al.

I. PREFACE:

The term "Telesoftware" refers to computer software "instructions" that have been formatted into *standard/"normal" Teletext pages* so that they can be conveyed through a TV network as part of the networks standard/normal Teletext service. ***Standard Teletext pages*** inherently carry display/software "instruction sets" by dividing each instruction set into a plurality of discrete instruction portions to be carried with a respective plurality of discrete information bearing signal packets.

The discrete information bearing packets are then embedded within a plurality of vacant lines of a TV signal broadcast for transmission through the TV network to various receiving stations. At the receiving stations, the information bearing packets of selected Teletext pages can be selectively identified, extracted, and decoded so that the discrete instruction portions carried there within can be recovered and re-organized back into the original complete display/software instruction set.

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Specifically, the examiner takes Official Notice that *standard*/*normal* **Teletext pages** were comprised a plurality of "discrete signals" which had to be "organized" on the receiver side of the system back into a complete instruction set which was used to:

- a) instruct a character generator within the receiver as to how to "locally generate" desired Teletext images for display;
- b) load a computer within the receiver with the desired Telesoftware needed to by the computer to perform a desired task;
- c) etc,...

Being such, the mere recitation of different "discrete signals" which must be "organized" with each other to generate an complete instruction set on the receiver side of the system does nothing to overcome applied Teletext/Telesoftware "prior art"; e.g. such "discrete signals" were in fact an inherent part of the applied Teletext/Telesoftware "prior art".

II. The Showing of Hedger et al.:

1) The examiner notes that the term "Telesoftware," meaning *software at a distance*, was coined for the purpose of covering: "the concept of broadcasting computer programs as part of a normal Teletext service" [see lines 12-17 under the heading "ORACLE TELESOFTWARE" on page 560 of Hedger et al.]. More specifically, Telesoftware programs were stored *as normal Teletext pages* within the Teletext database computer of the television broadcast so that they could be: retrieved from the database *as normal pages* of Teletext data; inserted into the VBI of a television signal broadcast as a normal page of Teletext data; transmitted to household receiver station location within the VBI of the television signal broadcast as a normal page of Teletext data; and extracted and processed at those of said household receiver station location which comprises an appropriately modified Teletext receivers/decoders [note the discussion under the heading "ORACLE and TV Transmission System" which begins on page 561 of Hedger et al.]. The appropriately modified Teletext receiver/decoder was controlled by microcomputer which was pre-programmed with a "resident control program" which was at least responsible for controlling the Teletext decoder to capture, acquire, and run those of the received Teletext pages which comprised desired Telesoftware programming [see the discussion under the heading "The Telesoftware Receiver" on page 562 of Hedger et al.]. Once loaded and run by the microcomputer, Telesoftware programming was known to have performed

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information manipulation by controlling the Teletext receiver/decoder to capture and acquire further pages of conventional Teletext data which contained the information which was to be manipulated the running Telesoftware programming [note lines 20-30 under the heading "The Telesoftware Receiver" on page 562 of Hedger et al.]. One illustrated example of such **information manipulation** was a Telesoftware program which was used to compute the rise (or fall) in values of a users stock portfolio. When acquired and run, this stock portfolio analyzing software operated: 1) to determine the shares of stock that a user held in the his/her portfolio from locally stored user portfolio information; 2) obtained current prices for the shares of stock held in the user's portfolio by capturing/acquiring conventional pages of Teletext data containing said stock price information; and 3) by calculating the rise (or fall) of the user's portfolio based on the obtained share prices [see lines 25-34 under the heading "Information Manipulation" on page 564 of Hedger et al.]. The examiner notes the following:

1) The recited "first discrete signal" of claim 84 reads on the data which actually comprised the Telesoftware program in Hedger et al. while the recited "second discrete signal" of claim 84 reads on the Teletext page headers/numbers which were inherently associated with Telesoftware program data during its transmission **as normal Teletext pages** [i.e. this reading is clearly consistent with applicant's own alleged support of claim 84];

2) Alternatively, the recited "first discrete signal" of claim 84 reads on the captured Teletext pages which provided the Telesoftware program that was loaded and run in Hedger et al. while the recited "second discrete signal" of claim 84 reads on the captured acquired Teletext pages which provided the information which manipulated by the loaded/running software;

3) Alternatively, the recited "first discrete signal" of claim 84 reads on a first discrete Teletext data packet which carries a first portion of the Telesoftware programming in Hedger et al. while the "second discrete signal" reads on a second discrete Teletext data packet which carries a second portion of the same Telesoftware programming in Hedger et al., wherein the two portions must be organized with respect to each other in order to obtain the entire Telesoftware program that must be loaded and run; etc, ...

III. Differences:

Claim 84 differs from the Telesoftware system set forth in Hedger et al. only in that Hedger et al. did not state that the results of his Telesoftware manipulations

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resulted in information that was displayed “in conjunction” with the display of a related TV signal broadcast; i.e. the execution of the Telesoftware program in Hedger et al. was not explicitly described as having been performed/displayed “in conjunction” with a related TV signal broadcast.

IV. The showing of Gunn et al.:

Gunn et al. has been cited because it evidences the fact that those skilled in the art had recognized the desire to have used “program-related Teletext” transmissions to have added content to the broadcasted television programming to which it was related [note the first 10 line on the fourth page of the publication]. Gunn et al. recognized that such program related Teletext should not to be limited just to pages of program related character/text data, but should include pages of program related Telesoftware which could to be acquired and run by the receiver/decoder in conjunction with the display of the TV programming to which it was related [note the first 17 lines on the fifth page of the publication]. As a specific example, Gunn et al. described an application in which Telesoftware was captured and run by the receiver/decoder at the household locations *so as to analyze a user's stock portfolio* simultaneously (and in conjunction) with the receipt and display of the “*Wall Street Week*” television program. While Gunn et al. did not explain how the Telesoftware would work to analyze the stock portfolio, such details were already known within the Telesoftware environment as evidenced via the Hedger et al. showing.

V Obviousness:

The examiner maintains that it would have at least been an obvious choice of design to have implemented the program related Telesoftware described in Gunn et al. with information manipulating stock Telesoftware of the type that was described by Hedger et al. in order to have enhanced the content of received/displayed TV programming; i.e. wherein Gunn et al. evidenced that it was known to have been desirable to have enhanced the presentation of a broadcasted “WALL STREET WEEK” television program via portfolio analyzing Telesoftware while Hedger et al. evidenced an example of such stock analyzing software which was known to have been implemented specifically within the Telesoftware environment. More specifically, the examiner maintains that it would have been obvious to one of ordinary skill in the art:

- 1) to have implemented the “unspecified” stock portfolio analyzing Telesoftware that was described in Gunn et al. (see lines 2-17 on the fifth page of the document) using the “specified” information manipulating type

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of stock portfolio analyzing Telesoftware which was set forth by Hedger et al. (see lines 25-34 under the heading "Information Manipulation" on page 564 of Hedger et al.); or alternatively

2) to have performed the "specified" information manipulating type of stock portfolio analyzing Telesoftware which was set forth by Hedger et al. (see lines 25-34 under the heading "Information Manipulation" on page 564 of Hedger et al.) In conjunction with the "WALL STREET WEEK" TV program as was taught by Gunn et al. (see lines 2-17 on the fifth page of the document).

FOR THE RECORD

1) It is the examiner's position that the Hedger et al. and Gunn et al. publications, taken together, not only evidenced the obviousness of having used program related Telesoftware to generate and display information in conjunction with the broadcasted TV program to which it is related, but that the Hedger et al. and Gunn et al. publications evidenced the obviousness of having used information manipulating Telesoftware to analyze a users stock portfolio so as to generate and display information related to the same "Wall Street Week" TV program that was described in applicant's own disclosure; i.e. the same "Wall Street Week" programming embodiment from which all of the above rejected claims allegedly derive required 112-1 support.

2) While there is clearly a close correlation between the "Wall Street Week" embodiment that was shown/taught/suggested by the Hedger et al. and Gunn et al. publications and the "Wall Street Week" embodiment that was disclosed by applicant, examiner recognizes the fact that the "Wall Street Week" embodiment that was shown/taught/suggested by the showing of Hedger et al. and Gunn et al. does not appear to show or suggest all of the features which were set forth for "Wall Street Week" embodiment of applicant's own disclosure. However, it continues to be unclear as to whether any of these distinguishing features have actually been claimed. For example, at first glance, one might be tempted to interpret the recited "control signal" of applicant's claims as being limited to transmitted instruction signals of the 1987 written description which cause the ultimate receiver stations to: execute computer software contained at the receiver station; display images that have been generated at the receiver station; etc,... However, referring to Appendix A of applicant's response filed on 6/7/2000, such an interpretation of the "control signal" terminology would in fact be wrong.

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Specifically, as evidenced by said APPENDIX A, it is clear that applicant is reading (i.e. or perhaps *mis-reading* in accordance with the requirements of 112-1) the recited "control signal" terminology as comprising various types of header codes which were associated with transmitted discrete data/software signals/packets. If applicant's reading of "control signals" is accepted, then the recitations related to the processing of such "control signals" fail to distinguish applicant's claimed invention over conventional the Teletext data/software transmissions of the applied prior art because such Teletext data/software inherently comprised such associated header codes too.

3) With respect to applicant's arguments filed 1/28/2002:

A) Applicant alleges that the examiner's position that "discrete signals" are an inherent part of *standard Teletext pages* is a "hypothetical" assumption [as was explicitly noted in the Hedger publication, *Telesoftware* computer programming was in fact transmitted as *standard Teletext pages*]. Such allegations are clearly founded in an unrealistically low level of skill in the art [SEE: part "A." of "Section VII" of this Office action; part "2)" under "Section IV" of this Office action; APPENDIX B of this Office action; etc,...];

B) Contrary to applicant's allegations, "Telesoftware" is in fact is computer software (i.e. "processor instructions") whose discrete portions are transmitted as "discrete signals" within the information/character portion of the information carrying packets of *standard Teletext pages*; i.e. wherein the packets themselves constitute an additional form of "discrete signals". The Teletext packets, in which the Telesoftware portions are carried, are themselves comprised of numerous header and control signals; i.e. constituting even further forms of "discrete signals". These "discrete" header and control signals are used on the receiver side to detect, decode, and re-organize the "discrete" Telesoftware portions from the "discrete" Teletext packets back into a complete Telesoftware program (i.e. representing "processor instructions") which is then loaded into and run by the computer within the receiver station [e.g. note APPENDIX B of this Office action]. In the modified system set forth above, the re-organized Telesoftware software that was run caused the computer to compute the rise and fall of a user's stock portfolio based on previously stored user specific stock information/data (as taught by Hedger), wherein this

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computer processing/calculation was performed "in conjunction" with the displayed "Wall Street Week" TV program (as taught by Gunn et al.).

4) The examiner notes that there are many other references of record which further substantiate the obviousness of having used downloaded Telesoftware as the vehicle for combining Teletext and television into a combined presentation. ⁶⁶

10) Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-028691] for the same reasons that were set forth for claim 84 above.

The "at least one processor instruction" of claim 93 is met by the conveyed sets/pages of Teletext data themselves being that the such pages of conveyed data inherently represented respective "series of instructions" [NOTE "APPENDIX E" attached hereto].

11) Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over "standard" Teletext decoders, e.g. of the type illustrated in the figure of US Patent #3,982,065 to Barnaby et al., when operating in a conventional "Mixed" display mode (i.e. the display mode in which a locally generated Teletext images were inset within the images of displayed TV programming). The following is noted:

- 1) Each page of standard Teletext data is transmitted as a series of discrete "packet" signals each of which is embedded within a respective vacant horizontal line interval of a standard TV signal;
- 2) Each page of standard Teletext data represents a series of instructions which can be used/processed by a standard Teletext decoder in order, for example, to locally generate a Teletext image for display;

⁶⁶ For example, note the first full paragraph on page 42 of the Summer 1982 "Telesoftware and Education Project" Report which was cited by applicant.

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3) In order to locally generate a Teletext image for display, standard Teletext decoders (e.g. "processors" by definition) operated:

A) To "receive", "detect", "pass", and decode each of the plurality of discrete "Teletext packet" signals (e.g. "first", "second", third, etc, ... discrete packet signals) which contain the "instructions" that are needed to locally generate the desired Teletext image that is to be inset/displayed;

[e.g. @ elements 3, 5-8, 11-15, and 21-24 of Barnaby et al.]

B) To "organize" the information obtained from each of the decoded discrete Teletext packet signals, with the information obtained from the other discrete Teletext packet signals, into a complete instruction display sequence/set for the given page; [e.g. @ element 26 of Barnaby et al.]

C) To "pass" the complete instruction display sequence/set to the character generator contained within the decoder, whereby the character generator responds to this passed instruction sequence/set by locally generating the Teletext image data that is to be inset into the TV programming based on "user specific" data that is stored within the ROM of the character generator; [e.g. @ element 33 of Barnaby et al.]

D) To output the locally generated Teletext image data to a display device [e.g. @ elements 2 and 4 of Barnaby et al.] which, at least obviously, might include inseting the locally generated image data into received/displayed TV programming via a "mixed" display mode⁶⁸.

⁶⁷ The data in the ROM is "user specific" in the sense that different ROMs used at different user receiver stations inherently contained different character bit pattern sets of different fonts depending on the manufacturer the decoder preferred/selected/bought by each respective user [*also* NOTE how "user specific" terminology was originally used/defined by applicant as was addressed in part "14." under the "Section IV" of the Office action mailed 8/27/01 in 08/470,571 (e.g. @ page "H&W 056" in APPENDIX C of the amendment filed 1/28/2002 in 08/470,571)].

⁶⁸ While Barnaby et al. does not describe a "mixed" display mode, such a "mixed" mode was in a fact a notoriously well known and obvious "alternative" way in which Teletext image data was desirably displayed.

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12) Claim 110 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Zaboklicki [DE 2904981] as translated by both the PTO and Applicant (applicant's translation being the cleaner and more easily understood version thereof).

I. PREFACE:

The examiner takes Official Notice that the term "Telesoftware" was originally coined by one skilled in the art for the expressed purpose of referring to "computer software/programs" which were conveyed/downloaded through a TV transmission network via standard Teletext pages of a standard Teletext service.⁶⁹ The term "Telesoftware" was unquestionably used within the context of the Zaboklicki document in this conventional fashion. This is evident by the fact that "56" in figure 3 of Zaboklicki is identified as a "Teletext decoder" which comprises circuitry ("40") for extracting and outputting "Telesoftware" [SEE: the descriptions for elements "3", "40", "41", "56" under the heading "List of Reference Numbers" *which appears in both of the obtained translations of record*].

II. The showing of Zaboklicki (summarized):

In Zaboklicki, a plurality of "interactive" multimedia presentation were transmitted from a central transmitter station to a plurality of receiving stations wherein each of these transmitted "interactive" multimedia presentations was comprised of downloaded "Telesoftware" and a "pool" of multimedia programming segments/"fragments". These multimedia programming segments/"fragments" most certainly included:

- 1) repetitively transmitted moving picture segments/"fragments" carried via normal TV channels;
- 2) repetitively transmitted audio segments/"fragments" carried via normal radio channels;
- 3) repetitively transmitted pages of Teletext character/graphic carried as part of a standard program related Teletext service; and

⁶⁹ SEE the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger (e.g. the first column of page 560).

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- 4) locally retrieved video signal provided from storage devices located within each of the receiving stations.

In operation, viewers at respective ones the receiver stations chose the "interactive" multimedia presentation that they wished to view. At that point, the computer within their receiver station received, loaded and ran a "Telesoftware" computer program which was associated with the selected "interactive" multimedia presentation. This running "Telesoftware" provided the computer at each receiving station with the intelligence it needed to control the station to have sequentially selected, identified, extracted, and presented a series of segments/"fragments" from the respective "pool" of multimedia programming segments/"fragments" based on the inputs/responses entered by respective viewers. In this way, each receiver station was capable of generating its own "unique" multimedia presentation, based on its own viewer's "unique" inputs/responses, while simultaneously receiving the same "pool" of multimedia programming segments/"fragments" as the other receiving stations. And because all of the receiving stations received the same "pool" of multimedia programming segments/"fragments" at the same time, an unlimited number of receiving stations could each produce a "unique" versions of a given multimedia presentation without costing the TV network any additional bandwidth. Namely, the Zaboklicki "interactive" system configuration was advantageous over the "prior art" of its time in that it allowed all of the receiver stations to receive and work-off the same multimedia "transmission" thereby minimizing the bandwidth that was required to convey the multimedia "transmission" to the plurality of receiver stations while, at the same time, allowing each station to independently assemble a selected group of the received segments/"fragments" into a version of the multimedia presentation that was "uniquely" tailored specifically to the user's inputs (as well as the user's rate of input); i.e. an enhanced ability provided by the intelligence programmed into each of the receiving stations via the computer software that was downloaded to the stations as "Telesoftware".

III. "DISCRETE SIGNALS":

Again, the term "Telesoftware" refers to computer software "instructions" that have been formatted into *standard/"normal" Teletext pages* so that they can be conveyed through a TV network as part of the networks standard/normal Teletext service. *Standard Teletext pages* inherently carried both their display and Telesoftware "instruction sets" by dividing each instruction set into a plurality of discrete portions which were then inserted within respective discrete information bearing signal packets for transport through the TV network. During

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transport, the discrete information bearing packets of the Teletext service were embedded within respective vacant lines of a TV signal broadcast and the combined signal was transmitted to various receiving stations. At the receiving stations, the information bearing packets of selected Teletext pages were selectively identified, extracted, and decoded so that the discrete instruction portions carried there within can be recovered and re-organized back into the original complete display/software instruction set.

Specifically, the examiner takes Official Notice that *standard/“normal” Teletext pages* were comprised a plurality of “discrete signals” which had to be be “organized” on the receiver side of the system back into a complete instruction set which was used to:

- a) instruct a character generator within the receiver as to how to “locally generate” desired Teletext images for display;
- b) load a computer within the receiver with the desired Telesoftware needed to by the computer to perform a desired task;
- c) etc,...

Being such, the mere recitation of different “discrete signals” which must be “organized” with each other to generate a complete instruction set on the receiver side of the system does nothing to overcome applied Teletext/Telesoftware “prior art”; e.g. such “discrete signals” were in fact an inherent part of the applied Teletext/Telesoftware transmissions.

IV. The showing of Zaboklicki (a more detailed look):

The examiner maintains that Zaboklicki disclosed an TV system in which:

- 1) Respective “*targeted*” computers of a plurality of computer controlled receiver stations each received, loaded, and ran the same software instruction set that was downloaded to it via the discrete signals of one or more received “Telesoftware” pages;
- 2) The respective computers of the plurality of computer controlled receivers were then controlled by the downloaded instruction set to selectively display only selected ones of a plurality of transmitted TV

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program fragments based on data and/or responses inputted by the respective user; e.g. wherein the TV program fragments comprised video broadcast segments, audio broadcast segments, "pages" of Teletext display data, etc,... and

3) The program fragments themselves included embedded identification codes (e.g. such as Teletext page numbers) which were received, extracted, and processed by the computers of the respective receivers in order to enable the computers to locate and identify the occurrences of the program fragments which were to be selected and displayed at the receiver station.

V. With respect to the limitations of claim 110:

1) The examiner maintains that the recited "plurality of processor instructions" of claim 110 (e.g. information of the recited "first" and "second" discrete signals), are met by the plurality of portions of the downloaded Telesoftware instruction set that were transported within respective discrete information Teletext signal packets inherent to all "Telesoftware" pages (e.g. including, at least obviously, the "Telesoftware" described in Zaboklicki);

2) The examiner maintains that the recited of "additional processor instruction" of claim 110 is met by the ones of the embedded fragment identification codes in Zaboklicki that actually identified the occurrence of a next program fragment to be selected and displayed by the receiver station based on stored user specific data/inputs thereat, in that these fragment identification codes were effective to cause/"instruct" the computer of the receiver station to select and output said next fragment of the programming for display as a portion of the presentation being created and displayed thereat;

3) The examiner maintains that all portions of the programming transmitted by the Zaboklicki system were, at least obviously, received at the transmitted station of the system and were then transferred to the transmitter of the transmitted station simply by the fact that they originated from a transmitted station; e.g. it is the examiner's position that all signals, including those disclosed in Zaboklicki, that are transmitted by a

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transmitter station must inherently be "received" and "transferred" to the transmitter of the transmitter station in order to be transmitted by the station!

- 4) The examiner maintains that the "stored user specific data":
- A) Is broad enough to read on pre-stored character/graphic "FONT" data which is inherently within character/graphic generator (42) or, alternatively,
 - B) That it is obviously met by the pre-stored viewer's initial data that is supplied from memory 35; i.e. while not explicitly stated in Zaboklicki, the examiner maintains that one skilled in the art would at least have recognized the obviousness of having used the stored viewer's initial data to identify the "demographics" of the user thereby tailoring the programming (i.e. selecting the fragments to be displayed) accordingly.

13) Claims 116 and 117 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Baker et al. [GB 2,155,283].

I. Baker et al. (summarized):

Baker et al. disclosed a wired broadcast system which included:

- 1) an originating transmitter station;
- 2) an intermediate switching/transmitter station; and
- 3) a plurality of subscriber receiver stations.

The wire broadcast system disclosed by Baker et al. was configured so as to allow the originating transmitter station to present specific Teletext messages to any given one of the system subscribers irrespective of whether the subscriber's receiving station comprised the Teletext decoder which was required to decode the conveyed Teletext message. Specifically, when the Teletext message being conveyed from the origination station was directed to a receiver station which

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was "adapted" to include the required Teletext decoder, prior to transmitting the message, said originating transmitter station first conveyed a "control signal" to the CPU of the intermediate station which caused the intermediate station "to communicate" (via matrix switch 3) said Teletext message directly the respective receiver station for local decoding and display thereat. Alternatively, when the Teletext message conveyed from the originating transmitter station was directed to a receiver station which was not adapted to include the required Teletext decoder, prior to transmitting the message, said originating transmitter station first conveyed a control signal to the CPU of the intermediate station which caused the intermediate station "to communicate" the Teletext message to a Teletext decoder which was locally located within the so "adapted" intermediate station; e.g. whereby the Teletext message was decoded and converted into a displayable TV image at the intermediate transmitter station prior to being passed on (via matrix switch 4) to the respective receiver station for display thereat.

II. Baker et al. (further details):

As is shown in figure 1, Baker et al. Illustrated the **intermediate transmitter station** which is located between the **originating headend transmitter station** and the plurality of **subscriber receiver stations**. The intermediate transmitter station comprised the CPU unit (11) which, in response to "**control signals**" that it received from the originating transmitter station [e.g. note lines 122-124 on page 1], controlled matrix switches (3 and 4) to selectively pass TV signals and Teletext messages on to the receiver station for display thereat. The following is noted:

1) The originating headend transmitter station of Baker et al. comprised circuitry for "**transmitting**" a full channel/field Teletext signal to the intermediate transmitter station [e.g. note lines 98-100 on page 1], wherein:

A) This full channel/field Teletext signal carried different digital Teletext messages to different ones of the system's subscribers [e.g. note lines 100-105 on page 1]; and

B) Each of these different Teletext messages was carried (e.g. at least obviously) in a conventional Teletext page format being that each of these messages was explicitly described as having been identified by unique Teletext "page and subpage" addresses [e.g. note lines 124-127 on page 1] and, being such, each of the different messages inherently comprised a plurality of "**discrete**

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Teletext packet signals" containing rows of Teletext **"information"** which, when **"organized"** together by a Teletext decoder, comprised the **"processor instruction"** needed to instruct the character generator of the decoder as to how to **"locally generate"** the image of the Teletext message;

2) That the intermediate transmitter station comprised its own Teletext decoding circuitry (e.g. elements 6-10 of figure 1) which, **"when so adapted"**, actually functioned **"to organize the information"** from discrete Teletext packet signals into said processor instructions which were needed/used by the intermediate station's decoder to **locally generate** the image of the Teletext message that was to be displayed at the receiver station; and
[e.g. lines 112-130 on page 1];

3) That those subscriber receiver stations which were attached to switching matrix 3 comprised their own Teletext decoding circuitry (e.g. lines 98-105 on page 1) which, **"when so adapted"**, actually functioned **"to organize the information"** from discrete Teletext packet signals into said processor instructions which were used/needed by the receiver station's decoder to **locally generate** the image of the Teletext message that was to be displayed at receiver station.

III. Obviousness:

Each of the receiver stations in Baker et al. clearly operated to display both the "locally generated" images of the Teletext messages and the "video" portion of TV signals; e.g. both of which were supplied via the transmission lines @ "1" of figure 1. The examiner maintains that the "in conjunction with" recitation that is set forth in lines 5 and 6 of claim 116 and the "at least one of a combined and sequential output" recitation that is set forth in lines 1 and 2 of claim 17 are "obviously" insufficient to distinguish recited method over this Baker et al. receiver station operation.

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14) Claim 162 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki [DE 2904981], as translated by both the PTO and Applicant, for the same reasons that were set forth for claim 110 above.

The examiner maintains the following:

1) That the "Telesoftware" that is transmitted by the Zaboklicki system obviously, if not inherently, comprised segments of processor instructions conveyed via discrete Teletext packets signals of one or more Teletext pages;

2) That this transmitted "Telesoftware" was used to program the MPUs of the receiving stations to identify and select the ones of the subsequently transmitted program segments/fragments which were to be successively displayed "in conjunction with each other"; and

3) That the selected program segments/fragments which were displayed in conjunction with each other included locally generated Teletext images and TV broadcast segments (e.g. note claim 9 of applicant's translation).

15) Claims 110 and 162 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zaboklicki [DE 2904981], as translated by both the PTO and Applicant, in view of Freeman [US #4,602,279].

1) See the rejections of claims 110 and 162 based on Zaboklicki as addressed above.

2) Freeman has been cited to evidence the fact that the generation and use of **user specific** "initial" data, e.g. specifically that which was stored and used @ 35 in figure 3 of Zaboklicki, was notoriously well known within such quasi-interactive type video systems [NOTE: the abstract; lines 32-39 of column 2; lines 10-27 of column 3; lines 62-68 of column 7; lines 1-10 of column 8; lines 57-65 of column 8; etc,.... of Freeman]

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16) Claim 179 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baer [US #4,034,990] in view of Jeffers et al. [US #4,247,106].

I. The showing of Baer (an overview):

As is shown in figure 3, Baer disclosed a "video gaming" system comprised of a remote transmitter station (@ 10, 34, and 36) and at least one receiver station (@ 12, 14, 20, 24, 26, 28, 29, 38, and 40). The transmitter side of the system included a remote source of video signal (@10) for providing at least one analog TV signal comprised of "second" video graphic images. These "second" video graphics images represented complex video backgrounds that included a plurality of "second" video graphic symbols/icons. These "second" video graphics images were also encoded with "identifiers" for identifying certain characteristics of the background symbols/icons [e.g. note lines 19-48 of column 2].

The receiver side of the system disclosed by Baer included circuitry receiving circuitry (@ 38 and 40) for receiving said at least one analog video signal from the remote transmitter station. The receiver side of the system also included decoding circuitry (@ 13) for extracting the "identifiers" from the received analog video signal. These extracted identifiers were provided to control circuitry (@ 24) which, in coordination thereto, locally generated "first" video graphic images based on user inputs from input devices (26 and 28). These locally generated "first" video graphic images comprised "first" video graphic symbols/icons which were then overlaid on top of the "second" video graphic images (@ 12) in an "interactive"/"coordinated" manner. Namely, the "first" graphics images were overlaid on top of the "second" graphics images to produce a combined presentation in which the "first" graphic symbols/icons interacted with identified ones of the "second" graphic symbols/icons. The reason the complex background images were provided via a remote "external" analog video signal source in such video gaming systems was due to the fact that an enormous amount of programming/processing power was needed on the receiver side of the system when such complex background images were locally generated within logic/control circuitry (24) instead. Specifically, generating animated complex video graphic backgrounds via an external/remote video signal source, instead of locally via receiver side logic circuitry, reduced the amount of programming/processing power that was required of the receiver side

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logic circuitry; i.e. be it implemented with either dedicated logic circuitry or a re-programmable computer.⁷⁰

II. The showing of Baer (a closer look):

As is shown in figure 3, the "video gaming" system disclosed by Baer comprised:

A) Said remote transmitter station (@ 34) for receiving an externally provided video graphic signal from a remote video signal source (10) and for passing this received video signal to a transmitter (37) for transmission over the air or through a CATV distribution system [note lines 52-60 of column; and

B) At least one receiver station (12, 14, 20, 26, 28, 29, 38, 40) for outputting a "multimedia presentation" by interactively overlaying "a first portion" of the multimedia presentation over a second portion of the multimedia presentation, wherein:

1) said first portion of the multimedia presentation comprised the locally generated graphic symbols/icons which were provided via game controller (24); and

2) the second portion of the multimedia presentation comprised the composite analog video signal that was transmitted via the transmitter station.

Said receiver station comprised:

1) circuitry (e.g. 38, 40) for "**receiving**" the composite analog video signal from the transmitter station wherein the composite analog signal comprises a series of images each of which comprises at least one graphic image;

2) circuitry (e.g. 12) for "**passing**" the received series of images to a video monitor having a viewing screen (e.g. @20);

⁷⁰ Also note:

1) the cover page of Matsushita [JP 55-26792];
2) lines 24-34 of Kanamara et al. [US 4,580,779]; and
3) figure 3 and lines 1-15 in column of Baer et al. [US 4,359,223].

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3) the video monitor (@ 20) for **“displaying”** the series of images representing a **“first completed graphic image”** over the entire viewing screen of said monitor;

4) circuitry (e.g. 14, 24) for detecting, decoding, and “determining a video content” of the received analog video signal based on detected “identifiers” which were encoded within the analog video signal;

5) circuitry (@ 24 and 12) for **“locally generating”** and **“passing”** a **“portion of a second completed full screen video graphic image”** to the video monitor (@20) based on:

- a. **“user specific data”** supplied to control circuitry (24) via user input devices (e.g. 26 and 28); and
- b. the detected “identifiers”; and

6) the video monitor (@20) for displaying said **“second completed full screen video graphic image”** which is comprised of the locally generated **“portion”** overlaid over the and the **“first completed graphic image”**.

III. Differences:

Claim 179 differs from the showing of Baer only in that:

- 1) Baer did not explicitly indicate that his receiver side control circuitry (24) comprised of a software driven computer (e.g. as opposed to dedicated logic circuitry); and
- 2) Baer did not state that his game control circuitry (24) was programmed via software signaling downloaded to it in the form of a plurality of discrete signals via an externally located software signal source.

IV. Obviousness:

The examiner maintains that the control circuitry (24) in Baer most likely comprised of a software driven computer. However, for the sake of argument, the examiner maintains that it would have at least been

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obvious to have replaced the dedicated logic circuitry with a software driven computer had the control circuitry actually been implemented with said dedicated logic circuitry; e.g. such a modification represented nothing less than a notoriously well known, desirable, and obvious upgrade of technology [e.g. as per the teachings found in lines 9-34 of column 1 in Jeffers et al.]. For example, such an upgrade of technology was desirable in that it advantageously allowed new/different video games to have been selected and played by the user simply by loading new/different software into to the receiver side computer.

As to the mechanism by which the new/different gaming software was to have been changed, Jeffers et al. evidenced the obviousness of having downloaded it to the receiver station's computer, via a digital data channel, from a gaming software database externally located on the transmitter side of the system (e.g. a CATV headend) [e.g. lines 35-56 in column 1 of Jeffers et al.]. The examiner maintains that it would have been obvious to have "further" modified the system disclosed by Baer to have provided this video gaming software downloading feature/enhancement/capability/mechanism that was described in Jeffers et al..

THE FOLLOWING IS NOTED:

A) In the system disclosed by Baer, as modified by the teachings of Jeffers et al., the downloaded computer gaming "software" inherently constituted the "first and second discrete signals" which had to be "**passed**" to the computer (@24) and "**organized**" into "**processor instructions**" based on at least "**one control signal**" [note lines 1-15 in column 2, lines 15-68 in column 3, and lines 1-26 in column 4 of Jeffers et al.].

B) In the system disclosed by Baer, as modified by the teachings of Jeffers et al., the "**user specific data**" includes the game selection code which had to be entered and "**stored**" at the receiver (e.g. by register 38 in Jeffers et al.) prior to the receipt and organization of the selected game software.

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17) Claims 84, 93, 110, 123, 162, 167, and 171 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer [US #4,034,990] in view of Jeffers et al. [US #4,247,106] for the same reasons that were set forth for claim 179 above. In summary:

The system disclosed by Baer, as modified by the teachings of Jeffers et al., comprised:

- 1) An input device for entering "user specific data" via an input device wherein the entered data included video game selection codes;
- 2) A memory element for storing the user specific data (e.g. the game selection codes);
- 3) A remote transmitter station for generating and providing analog video signals each of which comprised of series of images representing animated graphic video background images;
- 4) A remote transmitter station for generating and providing a plurality of video gaming software over a dedicated data channel wherein each software "package" included discrete control signals and discrete instructions of a complete software instruction set, wherein:
 - A) the address signaling were compared with the stored user specific data (e.g. the game selection codes) in order to have "targeted" respective downloaded software "packages" to the computers/processors of specific receiving stations; and
 - B) the individual/discrete instructions of the appropriately "targeted" software package were received, decoded, and "organized" back into a complete software instruction set which was stored, loaded, and run by the respective receiver station's targeted computer in order to locally generate an interactive overlay; wherein the locally generated overlay was then overlaid on top of a corresponding one of the received background graphic signals, e.g. in a coordinated/related fashion, in order to create a complete combined graphic presentation.

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18) Claims 84, 93, 110, 123, 162, 167, 171 and 179 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer [US #4,034,990] in view of Jeffers et al. [US #4,247,106], for the same reasons that were set forth for claim 52 above, and further in view of Teletext's "Telesoftware" as discussed in the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger.

The examiner takes "Official Notice" that it was notoriously well known in the art to have downloaded gaming "software" to the receiving stations, e.g. as described in Jeffers et al., via the standard "pages" of a conventional Teletext service. In fact, at the time of applicant's alleged invention, the "Telesoftware" terminology had already been coined by those of ordinary skill in the art specifically for the purpose of referring to this process of downloading computer "software", e.g. including video gaming software, via standard Teletext pages of standard Teletext services [SEE: lines 34-40 in the first column on page 558 of Hedger; lines 18-22 in the first column on page 560 of Hedger; lines 42-47 in the second column on page 561 of Hedger; lines 1-37 in the first column on page 562 of Hedger; lines 1-22 in the second column on page 562 of Hedger; lines 13-26 in the first column on page 565 of Hedger; etc,...]. The examiner maintains that it would have been obvious to have downloaded the video game "software" to the receiver stations in the modified system of Baer via Teletext's "Telesoftware", wherein:

- 1) The Teletext pages containing the "Telesoftware" video games would necessarily have been transmitted from the transmitter station under control of the Teletext "page" transmission schedule "instructions" which were inherently held within the Teletext system's database computer [note lines 42-47 on in the second column on page 561 of Hedger];
- 2) The Teletext pages containing the "Telesoftware" video games could obviously have been transmitted in vacant lines of the analog video background signals to which each was related thereby forming a single combined transmission signal [note lines 3-7 in the first column on page 558 of Hedger]; and
- 3) The Teletext page or pages containing the "Telesoftware" video game which was to be played at the receiver station would necessarily have been decoded at said receiver station, e.g. in the

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manner of all Teletext pages, via the computer controlled Teletext decoder of the receiver station so as to extract and assemble all portions of the gaming software to be played that were contained within in the discrete packet signals of the respective Teletext page or pages [e.g. note: lines 34-40 of the first column on page 558 of Hedger; lines 1-6 in the first column on page 562 of Hedger; lines 7-37 in the first column on page 562 of Hedger; and lines 1-22 in the second column on page 562 of Hedger].

18) Claim 179 is rejected under 35 U.S.C. 103(a) as being unpatentable over "standard" Teletext decoders, e.g. of the type illustrated in the figure of US Patent #3,982,065 to Barnaby et al., when operating in a conventional "Mixed" display mode (i.e. the display mode in which a locally generated Teletext images were inset within the images of displayed TV programming). The following is noted:

A) With the exception of the recited "first discrete signal" of line 4, the examiner maintains that the steps recited in lines 3-11 of claim 179 read on a TV receiver that is operating to receive and display TV programming pertaining to a "cartoon" (e.g. "Tom and Jerry"). Specifically, such a TV receiver operates:

- 1) To receive a TV signal comprised of a series of images in which each image is comprised of at least one "graphic image";
- 2) To pass the received series of images, via video processing circuitry, to the display screen of a video monitor for delivery of said images to a user as visible versions thereof; and
- 3) To display said series of images on said screen of said monitor so as to create said visible versions thereof where, as in any cartoon, said displayed images comprise at least one "completed" full-screen graphic image that covers the entire display screen of said video monitor;

B) The examiner maintains that the "first discrete signal" of line 4 and the steps of lines 12-30 read on a process in which a "standard" Teletext signal is contained within the received cartoon and is displayed in the a

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mixed display mode over the displayed TV programming (i.e. the cartoon). See the discussion set forth for claim 93 in the preceding paragraph of this Office action.

C) It is notoriously well known in the art for TV broadcast networks to have inserted their Teletext services during the broadcast of all network TV programming thereby ensuring that the Teletext services were always available to their users whenever they were desired. Being such, it was obvious that Teletext services would have been provided during the broadcast of cartoons too. Having operated a Teletext decoder in its notoriously well known "mixed" display mode while receiving such cartoon's, simply represents a situation in which said decoder was used in the way it was intended; i.e. the examiner maintains that there was nothing novel or unexpected in using a conventional Teletext decoder to display conventional Teletext data in a mixed display mode during the receipt of cartoon programming!

19) Claims 57-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "Teletext/Viewdata LSI" by Harden for the same reasons that were set forth for claim 56 above.

1) With respect to claim 57:

The receiver station device that was described by Harden comprises and LSI and various interface circuits all of which were controlled by a "Control device to which was connected a keyboard" [Note: part "4." under the heading "A REAL SYSTEM" in the second column on page 354; figures 1 and 2, etc,...]. This "control device", e.g. for controlling the whole system, was described as having comprised a programmable "device"/microcomputer [Note: lines 1 and 2 in the second column on page 355; part "2." under the heading "SYSTEM FACILITIES AND EXTENSIONS" on page 357; etc,...].

2) With respect to claim 58:

As was noted for claim 57 above, the whole decoder system that was described by Harden was controlled by a programmable device/microcomputer; i.e. by a programmable "computer". For such a programmable "computer" to have operated, it must have had access to

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locally stored software comprised of at least one stored "processor instruction". Portions of this stored software were obviously executed by the computer when desired Videotext pages were being obtained from the remote server based on "instruct signals" received from a user via the keyboard of figures 1 and 2. Specifically: the programmable microcomputer/"computer" was described by Harden as having controlled the whole decoder; and stored software was obviously (if not inherently) the means by which the operation of this programmable microcomputer/"computer" was controlled.

3) With respect to claim 59:

Harden further noted that extra processing power can be added to the described Teletext decoder by using said decoder as a VDU for a "home computer" or by using the decoder to download computer software (e.g. *Telesoftware*) of the type that already existed within the Teletext/Viewdata transmissions [Note: the last paragraph under the heading "BUS STRUCTURE" in the first column on page 355].

4) With respect to claims 60 and 61:

In order to have requested and obtained a specific desired page of data, the system described by Harden obviously had to have processed "an identifier" which identified said specific identified page of data; i.e. being that the server had no way of knowing what page was requested if not so identified. The specific identified page at least corresponds to a type of "digital programming" and the "locally generated image".

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SECTION IX: other issues:

>The examiner notes that the art of record has been applied to the extent of the examiner's understanding in view of the extensive section 112 issues cited above.

2) Any inquiry concerning this communication should be directed to **David E. Harvey** whose telephone number is **(703) 305-4365**. The examiner can normally be reached Monday-Friday between the hours of 9:30 AM and 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Andrew Faile, can be reached at (703) 305-4380.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:


(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. Sixth Floor (Receptionist).

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose number is (703) 306-0377.

DEH 4/02


DAVID E. HARVEY
PRIMARY EXAMINER


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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APPENDIX A- ["standardized" Teletext (exemplified)]

A. 3/26/81

UK TELETEXT SYSTEM525 LINE 60 FIELD SYSTEMS APPLICATIONS

The characteristics of broadcast signals according to the UK Teletext System are defined in the form of a set of decoder response levels. Some features are common to all levels and other features apply optionally.

Decoders responding at level 1 provide a set of 96 alphanumeric characters and two sets of mosaic graphic characters, these latter including 32 alphanumeric characters. A full range of serial display attributes, that include seven display colours are available.

Optional features applicable to all levels include the designation of linked pages for automatic storage and a page confidence check. Further optional features are the designation of an initial page to be selected automatically at switch-on and information related to equipment control rather than display. It is envisaged that this data would apply to a Television Network or Channel generally and not only to the teletext service.

Decoders responding at level 2 include the full ISO character repertoire, additional serial and the full range of parallel attributes. Off text area display attributes are defined on a full screen and full row basis. Means are provided to redefine the national option characters in the primary character set on a page or magazine basis. A smoothed mosaic graphics set and a large range of pastel colours are included.

Level 3 introduces Dynamically Redefinable Character Sets (DRCS) and associated redefinable display colours from a very large range. Such down loaded character sets may be used to extend the character sets of level 2 or to display a complete page.

Page addresses are reserved for levels 4 and 5 that employ respectively alphageometric and alphaphotographic coding. These levels will be fully defined when agreement concerning the coding procedures has been achieved.

Page addresses have also been reserved for the transmission of Telesoftware. This concept includes computer programmes and similar data not for direct display.

CONTENTS

<u>Sections</u>	1. to 10.	Characteristics applicable to all levels.
	11.	Response of decoders at level 1.
	12. & 13	Optional features applicable to all levels.
	14.	Response of decoders at level 2.
	15. & 16	Response of decoders at level 3.
	17.	Response of decoders at level 4.
	18.	Response of decoders at level 5.
	19.	Telesoftware.

UK TELETEXT SYSTEM

525 LINE 60 FIELD SYSTEM M APPLICATION

Characteristics of Broadcast Signals

1. TV Lines Usable as Data Lines	Subject to availability.
1.1. When Multiplexed with a TV Picture Signal	Lines 10 to 16 of both fields.
1.2. When Not Multiplexed With a TV Picture Signal	Any, except field sync and equalising pulse periods. See also Section 13.2.2.
2. Data Identification	Clock Run-in and Framing Code in appropriate time slot, see section 9.
3. Signalling Method	Binary NRZ.
4. Signal Levels 0 level 1 level	Nominal Values currently proposed: Black level $\pm 2\%$ 70(+6)% of the difference between black level and peak white level.
5. Bit Rate	Currently proposed value: 364 x nominal fH, 8/5 x FSc (5.727272 Mbits/s)
6. Data Timing Reference Point	Peak level of penultimate 1 of clock run-in.
7. Spectrum of Data Pulse	Skew symmetrical about 0.5 x bit rate, substantially zero by 4.2 MHz.
8. Data Line Content	290 bits as 37 bytes of 8 bits each.
9. Synchronism	See figure 1.
9.1. Clock Run-in (bit sync)	Bytes 1 & 2, begins 10101010....even parity.
9.2. Framing Code (byte sync)	Byte 3, 11100100, even parity.
10. Addressing	See figures 1 and 2.
10.1. Packet Numbers in Form X/T/Y For All Data Lines.	Bytes 4 & 5 Hamming protected. 2 binary digits for magazine number X 1 binary digit for tabulation T, 0 corresponds left hand side of display and 1 corresponds to right hand side of display. 5 binary digits for display row number Y. 256 unique packets available.
10.2. Page Header Data Lines	Packet numbers X/0/0
10.2.1. Page Number	Bytes 6 & 7 Hamming protected, 256 available.
10.2.2. Page Sub-Code	Bytes 8, 9, 10, 11 Hamming protected, 8192 available. Byte 9, bit 8 is control bit C4 and byte 11 bits 6 and 8 are respectively control bits C5 and C6, see Section 11.

11. Response of Decoder at Level 1

Decoder responds to:

a) Packet numbers X/0/0 to X/T/23.

See Note below.

b) Pages 00 to 99 coded BCD.

c) 3200 Page Sub-Codes. The four digits of the Page Sub-Code can take values in the ranges 0 to 3, 0 to 9, 0 to 7 and 0 to 9, respectively.

d) optionally packet numbers X/T/27 (and the contents of packet number X/T/24 and X/T/25) and packet number 4/1/30.

11.1. Control Bits in Page Header

Active on being set to 1. C4 to C14, bytes 12 and 13 contain C7 to C14 Hamming protected, see Section 10.2.2. for C4 to C6.

11.1.1. C4 Erase Page

Always followed by a 16ms interval before transmission of further data.

11.1.2. C5 News Flash

All information to be boxed.

11.1.3. C6 Sub-Title Page

All information to be boxed.

11.1.4. C7 Suppress Header

Header to be suppressed (display of clock time optional).

11.1.5. C8 Update Indicator

Following data may be limited to include only the updated part of the page.

11.1.6. C9 Interrupted Sequence

Associated page is not in numerical order of page sequence.

11.1.7. C10 Inhibit Display

Data not to be displayed

11.1.8. C11 Magazine Serial

Magazines transmitted one at a time in sequence

11.1.9. C12, C13, C14 Basic Character Set Select.

No response.

11.2. Page Display

11.2.1. Rows Displayed

Up to 24. When tabulation bit (see Section 10) is set to 0 data packets 0 to 23 correspond to the left hand side of display rows 0 to 23. With the bit rate of Section 5, 32 character spaces are included.

When the tabulation bit is set to 1, the data packet number corresponds to the first row number of a group of right hand sides of display rows. With the data rate of Section 5, the right hand sides of four display rows, each including 8 character spaces are carried by the packets. In order to preserve the integrity of packets carrying the page header, the right hand sides of rows 0 to 3 have the packet numbers X/1/1 and there is no response to packets numbered X/1/0.

11.2.2. Character Spaces in Rows 1 to 23

40, transmitted in 2 sections, each left to right

11.2.3. Character Spaces in Page Header, Row 0

32, transmitted in 2 sections, each left to right

11.3. Character Bytes

7 bits plus odd parity define a display or control character occupying a character space.

11.4. Character Sets for Display	<p>a) 94 alphanumeric characters plus SPACE and DELETE, see figure 3.</p> <p>b) 63 contiguous mosaic graphics characters, plus SPACE and 32 alphanumeric characters.</p> <p>c) 63 separated mosaic graphics characters, plus SPACE and 32 alphanumeric characters.</p> <p>See figure 4 for mosaic character set.</p> <p>Selection between a), b) and c) is by means of control characters, see Section 11.5.</p>
11.5. Control Character Set, 'spacing controls' Including Display Attributes	Set of 32 control characters, 5 unallocated for level 1, which affect the display attributes. The receiver defaults to certain attributes at the start of each row. Some control characters have effect immediately, others at the following character-space. Certain control characters have complementary forms. See figure 5.
11.5.1. Foreground Colour	White, yellow, cyan, green, magenta, red or blue. It is invoked by selection of alphanumeric or mosaic display mode, 7 pairs of control characters, see figure 5.
11.5.2. Background Colour of a Character Space - Black Background New Background	<p>Invoked by the control character 'black background'.</p> <p>This control character causes the foreground colour then obtaining to be adopted as the background colour.</p>
11.5.3. Contiguous Mosaic Graphics	Mosaic blocks adjoin one another.
11.5.4. Separated Mosaic Graphics	Each mosaic block is surrounded by a border of the background colour.
11.5.5. Hold Mosaic	A held mosaic character is displayed in place of a SPACE corresponding to a control character. The held character is defined only during the mosaic mode. It is the most recent character with bit 6 = 1 in its code, providing that there has been no intervening change in alphanumerics/mosaics or normal/double height display modes. It is displayed in the original contiguous or separated mode.
11.5.6. Conceal	Following characters are to be displayed as SPACE until 'revealed' by a decoder or user operation.
11.5.7. Flash	Following characters are to be displayed normally or as SPACE in alternation, under the control of a timing device in the decoder.
11.5.8. Boxing	Part of a page to be inset into the normal television picture. Protection against false operation is provided by double transmission of the control characters, with the effect taking place between them.
11.5.9. Double Height	Characters are to be stretched vertically to occupy in addition the corresponding character space in the display row with the next higher address, that row displays the same background colour as the previous row.

12. Ancilliary Text Related Data	Optional Features.
12.1. Linked Pages Related to a Given Page and Intended for Automatic Storage in the Decoder Memory	Data carried by packet X/0/27 See figure 2.
12.1.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive as Sections 9 and 10.
12.1.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection Codes 0000 to 0011 designate linked page function and are used repetitively as sequence labels for a number of packets X/0/27. There is no response to other codes.
12.1.3. Linked Page Addresses	Bytes 7 to 36 used as 5 groups of 6 bytes. Each group of 6 bytes defines a linked page address.
12.1.3.1. Data Group Format Defining a Linked Page	6 bytes, see figure 2 for bit sequence: Relative Magazine Number.....3 bits Page Number.....8 bits Page Sub-Code.....13 bits Hamming Protection.....24 bits <u>NOTE</u> There is no response to the data in byte 37.
12.2. Basic Page Check Word	Data carried by packet X/1/27.
12.2.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive as Sections 9 and 10.
12.2.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection. Code 0000 designates basic page check word function
12.2.3. Basic Page Check Word	Bytes 7 and 8 contain a Cyclic Redundancy Check on the data in packets X/0/0 and X/T/1 to X/T/25. For check word generation see figure 13. No response to bytes 9 to 37.
13. Broadcasting Service Data Packet	Packet 4/1/30 transmitted approximately once per second. See figure 2.
13.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive as Sections 9 and 10.
13.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection. First data bit set to 0 designates multiplexed function as in Section 1.1. First data bit set to 1 designates non-multiplexed function as in Section 1.2. Data bits 2, 3 & 4 set to 0 designate functions in Sections 13.3. and 13.4. There is no response to other codes.
13.3. Program or Network Label	Bytes 7 and 8 containing 16 bits data with at least one data transition included.
13.4. Initial Teletext Page for Storage in Decoder Without User Action	Bytes 9 to 14, see figure 2 for bit sequence: Relative Magazine Number.....3 bits Page Number.....8 bits Page Sub-Code.....13 bits Hamming Protection.....24 bits
13.5. <u>Data for Equipment Control</u> <u>Includes Time and Date in</u> <u>UTC with Local Offset and</u> <u>Program Related Data</u>	Bytes 15 to 37. Where appropriate the coding is to be the common codes of the basic character set, see Sections 11.4. and figure 3. For data format see figure 12.

14. Response of Decoder at Level 2

Decoder responds as level 1 plus packets X/O/26 and X/O/28. See figure 2.

14.1. Control Bits in Page Header

As level 1, see Section 11.1.

14.1.1. C4 to C11

Response as level 1 see Sections 11.1.1. to 11.1.8.

14.1.2. C12, C13, C14 Basic Character Set Selection

Decoder displays text using selected basic character set as follows:

Alphabet	C12	C13	C14
1) English, US version (see figure 3)	0	0	0
2) To be defined	0	0	1
3) To be defined	0	1	0
4) To be defined	0	1	1
5) To be defined	1	0	0
6) See Section 14.7.	1	0	1
7) See Section 14.7.	1	1	0
8) Reserved	1	1	1

14.2. Page Display

14.2.1. Rows Displayed

As level 1, Section 11.2.1., exceptionally 24 complete rows, see Section 14.9.

14.2.2. Character Spaces in Rows 1 to 23

As level 1, see Section 11.2.2.

14.2.3. Character Spaces in Row 0 Page Header

As level 1, see Section 11.2.3.

14.3. Character Bytes

14.3.1. Data Packets X/O/0 to X/T/24, X/O/27 & 4/1/30

As level 1, see Sections 11.3., 12. and 13.

14.3.2. Data Packets X/O/26

See Sections 14.4. and 14.6. and figure 2.

14.3.3. Data Packets X/O/28

See Section 14.4. and 14.7. and figure 2.

14.4. Character Sets for Display

a) Includes Full Latin Based repertoire of ISO a: 7 basic alphanumeric character sets of 94 characters each plus SPACE and DELETE, selected by Control Bits as in Section 14.1. Each extendable by the data in packets X/O/26, see Section 14.6. and redefinable by the data in packets X/O/28, see Section 14.7.

b) Contiguous mosaics as level 1, see Section 11.4. and Smoothed mosaics, see Section 14.6.16

c) Separated mosaics as level 1, see Section 11.4. and Smoothed mosaics, see Section 14.6.16.

Selection between a), b) or c) is by means of control characters and the data in packets X/O/26, see Section 14.6. and the data in packets X/O/28, see Section 14.7.

14.5. Control Character Set for Spacing Controls Including Display Attributes

Set of 32 control characters, 1 unallocated for level 2. Action as for level 1, see Section 11.5., except as defined in Sections 14.5.1. to 14.5.5. See also figure 5.

14.5.1. Foreground Colours	As level 1 plus black, see Section 11.5.1. and figure 5.
14.5.2. Underline Alphanumerics/ Separated Mosaic Graphics	Alphanumeric characters succeeding this control character are displayed underlined and mosaic characters are displayed in the separated mode as in Section 11.5.4. until the end of a display row of the receipt of a Cancel-Underline/ Contiguous Mosaic Graphics control character.
14.5.3. Cancel-Underline Alpha- numerics/Contiguous Mosaic Graphics	See Section 14.5.2.
14.5.4. Reduced Intensity	The background of alphanumeric characters and the foreground of mosaic characters are displayed at reduced intensity until the end of a display row or the second transmission of the colour control character then obtaining. <u>NOTE</u> It is recommended that this control character should reduce the displayed luminance to a subjective level approximately 50% of that obtaining in the normal intensity mode.
14.5.5. Cancel Reduced Intensity	See Section 14.5.4.
14.6. Character Set Extension and Non-Spacing Control Characters Including Additional Display Attributes	Uses packet X/T/26 to over write any character-space. The original character and attribute condition is the editor defined fall-back for level 1 decoders.
14.6.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5, see Sections 9 and 10.
14.6.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection. Codes 0000 to 1110, with the tabulation bit T as most significant bit, as sequence codes for a number of packets X/26 unto 30. Codes T 1111 have no response.
14.6.3. Data Groups	Bytes 7 to 36 used as 10 groups of 3 bytes each, a, b and c. See figure 2 for bit sequence. <u>a and b</u> (6 bits for display address (5 bits for mode description (5 bits Hamming protection <u>c</u> (7 bits data (1 bit odd parity Byte 37 has no response.
14.6.4. Display Addressing	6 display address bits, as in Section 14.6.3. These provide 64 combinations. The decimal values 0 to 39 specify character spaces along a given display row and the decimal values 40 to 63 specify a particular display row. A character space is thus defined by a data group including a row address followed by one or more character position data groups.

14.6.5. Full Screen Colour Including Borders Outside Normal Text Display Area (1)	<p>Invoked when the Mode Description bits of any Row Address data group are set to 00000. Data bits 5, 6 and 7 activate respectively the primary colours red, green and blue. Thus, for example bit values 000 correspond to black and 110 to yellow. Data bit 4 invokes reduced intensity, bits 1 to 3 are set to 0.</p>
14.6.6. Full Row Colour Including Borders Outside Normal Text Display Area (1)	<p>Invoked when the Mode Description bits of the appropriate Row Address data group are set to 01000. Data bits 5, 6 and 7 activate respectively the primary colours red, green and blue. Thus, for example bit values 000 correspond to black and 110 to yellow. Data bit 4 invokes reduced intensity, bits 1 to 3 are set to 0.</p>
14.6.7. Full Screen Pastel Colours Including Borders Outside Normal Text Display Area (1)	<p>Invoked when the Mode Description bits of any Row Address data group are set to 00001. Data bits 1 to 3 and 5 define 16 pastel colours. Bit 4 invokes reduced intensity, see figure 8.</p>
14.6.8. Full Row Pastel Colours Including Borders Outside Normal Text Display Area (1)	<p>Invoked when the Mode Description bits of the appropriate Row Address data group are set to 01001. Data bits 1 to 3 and 5 define 16 pastel colours. Bit 4 invokes reduced intensity, see figure 8.</p>
<p>NOTE 1 Background colours when defined explicitly and foreground colours take precedence over Full Row colours and Full Row colours take precedence over Full Screen colours.</p>	
14.6.9. Accented Characters from Supplementary Character Set	<p>For display at a character-space addressed as in Section 14.6.4. The Mode Description bits set at the range of values 10000 to 11111 respectively define accents for column 4 of the code table figure 6 in ascending numerical order. The associated character from the primary character set of figure 3 is defined by the 7 data bits.</p>
14.6.10. Special Characters from Supplementary Character Set	<p>For display at a character-space addressed as in Section 14.6.4. The Mode Description bits are set at 01111. The 7 data bits define a character from columns 2, 3, 5, 6 or 7 from the supplementary character set of figure 6.</p>
14.6.11. Alphanumerics, Normal Size with Colour and Flashing Attributes (2)	<p>For normal size alphanumeric display at a character-space addressed as in Section 14.6.4. The Mode Description bits are set to 00000. Data bits 1, 2 and 3 activate respectively the foreground primary colours red, green and blue. Thus for example bit values 000 correspond to black, 110 to yellow and 111 to white.</p> <p>Bit 4 activates Flashing.</p> <p>Bits 5, 6 and 7 define the background colour in the same manner as in the case of bits 1, 2 and 3 for the foreground colour.</p>

14.6.12. Alphanumerics, Double Height with Colour and Flashing Attributes (2)	As Section 14.6.11. except the Mode Description bits are set to 00001. Characters to be stretched vertically as in Section 11.5.4.
14.6.13. Alphanumerics, Double Width with Colour and Flashing Attributes (2)	As Section 14.6.11. except the Mode Description bits are set to 00010. Characters to be stretched horizontally to occupy in addition the next character-space.
14.6.14. Alphanumerics, Double Size with Colour and Flashing Attributes (2)	As Section 14.6.11. except the Mode Description bits are set to 00011. Characters to be stretched vertically and horizontally as in Sections 14.6.12. and 14.6.13.
14.6.15. Block Mosaics, Normal and Contiguous with Colour and Flashing Attributes (2)	For normal (not smoothed) mosaic display at a character-space addressed as in Section 14.6.4. The Mode Description bits are set to 00110. Data bits 1, 2 and 3 activate respectively the foreground primary colours red, green and blue. Thus for example bit values 000 correspond to black, 110 to yellow and 111 to white. Bit 4 activates Flashing. Bits 5, 6 and 7 define the background colour in the same manner as in the case of bits 1, 2 and 3 for the foreground colour.
14.6.16. Block Mosaics, Smoothed and Contiguous with Colour and Flashing Attributes (2)	As Section 14.6.15. except the Mode Description bits are set to 00111. For the smoothed mosaic graphics character set see figure 9.
14.6.17. Underline Alphanumerics or Separated Mosaics (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by the Mode Description bits set to 00110 and Data bit 1 set to 1.
14.6.18. Boxing (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by the Mode Description bits set to 00110 and Data bit 2 set to 1.
14.6.19. Conceal (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by Mode Description bits set to 00110 and data bit 3 set to 1.
14.6.20. Reduced Intensity Foreground and Background (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by Mode Description bits set to 01100 and Data bit 4 set to 1 for foreground and Data bit 5 set to 1 for background.
14.6.21. Pastel Colours in Foreground and Background and Flashing	Activated at a character-space addressed as in Section 14.6.4. Invoked by the Mode Description bits set to the range 01000 to 01011. The Mode Description bits and the Data bits define 16 foreground and background colours and the associated Flashing attribute. See figure 7.

NOTE 2 The effect of these attribute controls persists to the end of a row or until overridden by a further attribute control

NOTE 3 see page 9.

14.6.22. Termination Marker

Since more than one packet X/0/26 may be needed to display a given page, a terminator is provided by setting the Mode Description bits to 11111 in the final row address data group of the final packet X/0/26.

14.6.22.1. Packet X/0/26 and X/0/28 Check Word

NOTE 3 These attribute controls are mutually additive and are associated with an attribute invoked as in Sections 14.6.11 to 14.6.16. Their effect is as in NOTE 2 and they may also be overridden by a transmission of the data group with the corresponding data bit set to 0.

The two data bytes that follow a packet X/0/26 termination marker contain a Cyclic Redundancy Check on the data in packets X/0/26 and X/0/28. The process of generating the check word is identical to that of Section 12.3.3., using the data in packets X/0/26 followed by X/0/28. The sequence is completed by assuming the presence of the character SPACE (2/0) repeated as necessary. When only a packet X/0/28 carries data, only the termination marker and the C.R.C. check word will be carried by packet X/0/26.

14.7. Basic Character Set Dynamic Redefinition

In addition to the fixed alphabets 1 to 5 listed in Section 14.1.2. the 10 blank positions in the code table of figure 3 may be redefined on a page or magazine basis using the data contained in packet X/0/28.

In the packet associated function packets X/0/28 follow packet X/0/0 of the page in transmission sequence of that magazine. In the magazine based function it may follow any packet of that magazine.

Page Header Control bits C12, C13 and C14 set respectively to 1, 0 and 1 invoke page associated function.

Page Header Control bits C12, C13 and C14 set respectively to 1, 1 and 0 invoke magazine associated function.

14.7.1. Clock Run-in, Framing Code and Packet Address

Bytes 1 to 5 inclusive, as in Sections 9 and 10.

14.7.2. Designation Code

Byte 6, 4 bits data plus 4 bits Hamming protection. Magazine associated function designated by data bits set to 0000. Page associated function designated by data bits set to 0010.

14.7.3. Data Groups

Bytes 7 to 36 used as 10 groups of 3 bytes each, a, b and c:

<u>a and b</u>	(11 bits data (5 bits Hamming protection)
<u>c</u>	(4 bits data (4 bits Hamming protection)

14.7.3.1. Character Code Table Addressing

The sequence of 10 data groups defined in Section 14.7.3. represents a sequence of 10 data words each containing 7 + 7 bits. Each word redefines one of the blank positions in the code table of figure 3, in columns, top to bottom, from position 4/0 to position 7/14 proceeding in time along the packet X/0/28.

14.7.3.2. Character Coding	<p>The allocation of the data bits of Section 14.7.3. is as follows:</p> <p><u>Bit 1:</u> always set to 0.</p> <p><u>Bits 2 to 8:</u> represent a character from the primary set of figure 3.</p> <p><u>Bits 9 to 14:</u> represent a character from the supplementary set of figure 6. When this represents an accent it is combined with the character from the primary set defined by bits 2 to 8. When a special character from the supplementary set is defined, bits 2 to 8 are set to represent the character SPACE (2/0).</p> <p><u>NOTE</u> There is no response to byte 37 of packet X/0/28 in this mode.</p>
14.8. Pastel Colours Dynamic Redefinition Page Associated	<p>The 16 pastel colours of Sections 14.6.6., 14.6.7. and 14.6.21. may be redefined on a page basis using the data contained in packet X/0/28. Packets X/0/28 follow packets X/0/0 of the page in transmission sequence of that magazine.</p>
14.8.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive, as in Sections 9 and 10.
14.8.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection Designated by data bits set to 0011.
14.8.3. Data Groups	Bytes 7 to 36 used as 15 groups of 11 bits data plus 5 bits Hamming protection.
14.8.4. Display Colour Coding	<p>The sequence of 15 data groups provides 16 data words of 9 bits each. Each data word defines one of 8 possible levels respectively, of the 3 primary colours, red, green and blue. The first 8 data words in time sequence, replace group A of the colours defined in figure 7, the second 8 data words replace the colours of group B in figure 7.</p> <p><u>NOTE</u> There is no response to byte 37 of packet X/0/28 in this mode.</p>
14.9. Additional Row Display	This mode of operation has been defined to accommodate the need to transmit and display pages having a non-standard format.
14.9.1. Invocation	Control bit C7 in the page header packet X/0/0 (suppress header) set to 1.
14.9.2. Response of Decoder	Displays packets X/T/1 to X/T/24 in the normal page area. For enhanced modes (see Section 14.6.4.), the address code carrying the decimal value 40 defines display row 24.
15. Response of Decoder at Level 3	Decoder responds to packets as level 2 plus additional codes in the hexadecimal range, permit a set, or a pair of co-defined sets of characters to be down loaded into the decoder. A range of colour controls can be down loaded with the characters.
15.1. Range of Colours	See Section 16.
15.2. Range of Colour Controls	See Section 16.
15.3. Full Page Application	These pages can not be acquired by level 1 and level 2 decoders.

15.3.1. Access Page Per Magazine	Page A0.
15.3.2. Page Sub-Codes	Any except 3F7F.
15.3.3. Format of Packets Carrying Page A0	As level 2.
15.3.4. Down Loading Procedure	Uses data contained in Page A0, page sub-code 3F7F, see Section 16.
15.3.5. Display Procedure	User selects magazine X, page A0, and any page sub-code except 3F7F.
15.3.5.1. Decoder Action	<p>a) If a packet X/0/0 of page A0, page sub-code 3F7F immediately follows packet X/0/0 of page A0 including the selected page sub-code, load the DRCS as in Section 16.</p> <p>b) If a) above does not apply, then await the next packet X/0/0 of page A0, page sub-code 3F7F. If the magazine associated function bit C4 in this packet is set to 1, load the DRCS as in Section 16.</p> <p>c) If the page associated function has been invoked the sequence of packets as e) below follows immediately and they are acquired.</p> <p>d) If magazine associated function has been invoked the sequence of packets as e) below follows the transmission of packet X/0/0 of page A0 with the selected page sub-code and they are acquired.</p> <p>e) The first packet X/T/26 is now transmitted. In the row address groups of these packets, bit 4 set to 1 indicates magazine associated function and set to 0 indicates page associated function. This bit has no meaning when the DRCS mode is not invoked. The mode description bits of a character space address group set to 00100 invokes the first of two or a single DRCS and set to 00101 invokes the second of two co-defined DRCS. Other Mode Description bits have the same meaning as at level 2.</p> <p>f) The data in packets X/T/1 to X/T/23 is then displayed using the DRCS for the display rows defined by packets X/T/26 as in e) above.</p> <p>g) Further packets X/T/26 may be transmitted to provide non-spacing and off display area attributes. The character-space function of packet X/T/26 is as level 2 and can overwrite the DRCS with primary or supplementary set characters. In addition to the functions as in level 2, the basic character set is invoked by transmission of the NUL accent character (4/0).</p>
15.4. Character Set Extension Using DRCS.	Uses packet X/T/26 to overwrite any character position of the basic page as in level 2, but with characters from a DRCS, also a range of colour controls.
15.4.1. Down Loading Procedure	Uses data contained in page A0, page sub-code 3F7F, see Section 16.

15.4.2. Display Procedure

15.4.2.1. Decoder Action
- DRCS Acquisition

User selects magazine X, and a page that includes DRCS characters.

a) Following packet X/0/0 of the selected page, there follows the packets X/T/26. In the row address groups of these packets, mode bit 4 set to 1 indicates magazine associated function and set to 0 indicates page associated function. This bit has no meaning when the DRCS mode is not invoked. The character-space Mode Description bits are set to 01101 for a single DRCS or the first of two, or are set to 01110 for the second of two co-defined DRCS.

b) If a packet X/0/0 of page A0, page sub-code 3F7F immediately follows the final packet X/T/26 of a given page and C4 is set to 0 indicating page associated function, then load the DRCS as in Section 16.

c) If b) above does not apply and Mode bit 4 is set to 1 as in a) above, await the next packet X/0/0 of page A0, page sub-code 3F7F. If C4 in this packet is set to 1, indicating magazine associated function, load the DRCS as in Section 16.

15.4.2.2. Decoder Action
- Display

A second transmission of packet X/0/0 of the selected page now precedes the transmission of packets X/T/1 to X/T/23 of that page. To overwrite using packet X/T/26 at a character-space addressed as in Section 14.6.4. The Mode Description bits are set to 01101 for a single or first of a pair of DRCS; they are set to 01110 for the second of a pair of co-defined DRCS. The 7 data bits define a character for display from the DRCS.

16. Dynamically Redefinable Character Sets - Down Loading Procedure

Carried by a page A0, page sub-code 3F7F, using packets X/0/0 to X/0/25. The sequence of packets is repeated as necessary, see Section 16.3.3.

16.1. Clock Run-in and Framing Code

See Section 9.

16.2. Addressing

16.2.1. Packet Numbers X/0/0 to X/0/25

Bytes 4 and 5 Hamming protected.
2 binary digits for magazine number X.
1 binary digit set to 0.
5 binary digits for packet sequence numbers 0-25.

16.3. Packets X/0/0

16.3.1. Page Number

Bytes 6 and 7 Hamming protected, coded with page number A0.

16.3.2. Page Sub-Code

Bytes 8,9,10,11 Hamming protected and coded 3F7F. The included control bit C4 is set to 0 to invoke page associated function. When C4 is set to 1 magazine associated function is invoked. The included control bits C5 and C6 are set to 0. See Section 10.2.2.

16.3.3. Page Sequence and Colour Sequence Codes

Byte 12, 4 bits data and 4 bits Hamming protection.

16.3.3.1. Colour Sequence Code

Byte 12, data bit 1. When set to 0, all Mode controls and colours for downloading are in the first packet X/0/0 of the sequence as in Section 16.3.4. When set to 1, the first 16 bytes of 32 are in the first packet X/0/0 as above and the second 16 bytes are in the second packet X/0/0 of the sequence as in Section 16.3.5.

16.3.3.2. Page Sequence Code	Byte 12, data bits 2 to 4. The bit combinations 000 to 111 are used as sequence codes for the series of pages A0, page sub-code 3F7F.
16.3.4. Mode and Colour Data First Packet X/0/0	Bytes 13 to 34: a) Mode Controls.....2 or 3 bytes b) Colours to be Down Loaded.....0/16 bytes c) Start Control.....1 byte d) Address in Columns 2-7 of Code Table of First Character to be Down Loaded.....2 bytes
16.3.5. Colour Data Second Packet X/0/0	Bytes 13 to 30: a) Colours to be Down Loaded, second half of 32 bytes when required..16 bytes b) Address in Columns 2-7 of Code Table of Next Character to be Down Loaded.....2 bytes
16.3.5. Third and Subsequent Packets X/0/0	Bytes 13 and 14: Carry Address in Columns 2-7 of Code Table of Next Character to be Down Loaded.....2 bytes
16.4. Packets X/0/1 to X/0/25 of Sequence of Pages A0, Page Sub-Code 3F7F	Bytes 6 to 37: a) Character Data....number of bytes depends upon mode b) Character Terminate Control.....1 byte c) Subsequent Characters in numerical order completing each column, each character followed by the Character Terminate Control as in b) above..as b) d) Termination of Down Loading Control.....1 byte
16.5. <u>Character Sets Down Loadable</u>	A set, or a pair of co-definable sets of 94 characters on a 12 or 6 dot per raster line matrix, depending upon the mode selected. The matrix has 10 or 5 raster lines vertically depending upon the mode selected.
16.6. Down Loading Codes	16 standard control codes, 64 dot pattern codes, 31 DRCS mode control and instruction codes. See figure 10.
16.7. Modes	<u>Basic</u> display attributes are as for non-DRCS operation. <u>Colour</u> colour controls and colours also down loaded.
16.7.1. Basic Mode High Definition	<u>Display</u> 12 dots per raster line, nominally 10 raster lines per matrix. <u>Mode Controls</u> 6/0, 6/3 <u>Character Data</u> 2 bytes per raster line. First byte specifies even numbered dots (0 to 10). Second byte specifies odd numbered dots (1 to 11). The code bits b1, b2, b3, b4, b5 and b7 correspond directly to the dot pattern. Each complete matrix is terminated by the code 7/4.

16.7.2. Basic Mode
Low Definition

Display 12 dots per raster line, defined in pairs [(0,1) to (10,11)], nominally 10 raster lines per matrix. Two low definition sets may be co-defined.

Mode Controls Single low definition set or first of a pair of co-defined sets 6/0, 6/2, 6/4. Second of a pair of co-defined sets 6/0, 6/2, 6/5.

Character Data 1 byte per raster line. Each bit specifies a pair of dots.

Each complete matrix is terminated by the code 7/4.

This mode is the fallback for decoders having only 6 dot DRCS capability.

16.7.3. Colour Mode

1 value of horizontal definition, 12 dots per raster line defined in pairs.
2 values of vertical definition, 10 raster lines per matrix for high definition or 5 raster lines per matrix for low definition.
2 methods of colour control, red, green and blue primary colours with two levels of intensity (see Section 16.7.3.1.) or 16 down loaded specified colours (see Section 16.7.3.2.).

16.7.3.1. Colour Using Three Primary Colours

Display 12 dots per raster line, defined in pairs as in Section 16.7.2. Activation of red, green and blue with normal or reduced intensity.

Mode Control high definition 6/1, 6/3, 6/6.
low definition 6/1, 6/2, 6/6.

Character Data Dot patterns for complete matrix transmitted respectively for red, green, blue and intensity, i.e. four patterns for each complete matrix.

The transmissions for red, green, blue and intensity are respectively preceded by one of the delimiter codes 7/0, 7/1, 7/2 or 7/3. Only those required are transmitted and the complete matrix is terminated by the control code 7/4.

16.7.3.2. Colour Using 16 Down Loaded Colours

Display 12 dots per raster line, defined in pairs as in Section 16.7.2. any one of 16 colours may be associated with any dot pair. For colour down loading procedure see Sections 16.7.3.3. and 16.7.3.4.

Mode Controls high definition 6/1, 6/3 and 6/7 or 6/8, see Section 16.7.3.3. and 16.7.3.4.
low definition 6/1, 6/2 and 6/7 or 6/8, see Section 16.7.3.3. and 16.7.3.4.

Character Data Dot patterns for the complete matrix transmitted 4 times. The resultant 4 bits associated with each dot pair will thus have values in the range 0000 to 1111 in order to define one of the 16 colours. The transmissions define the 4 bits in order of decreasing significance and are preceded respectively by the delimiter codes 7/0, 7/1, 7/2 and 7/3. The complete transmission of the matrix is terminated by the control 7/4.

<p>16.7.3.3. Colour Down Loading 16 Colours from a Set of 64</p>	<p><u>Display</u> Each colour is defined by 1 of 4 levels of red, green and blue primary colours.</p> <p><u>Mode Controls</u> as Section 16.7.3.2. using the codes 6/1, 6/3 and 6/7.</p> <p><u>Colour Data</u> 16 groups of 6 bits define 1 of 4 levels for respectively red, green and blue primary colours. Bits b1, b2, b3, b4, b5 and b7 of the codes in figure 10 are used. The sequence of 16 groups of 6 bits correspond to the colours invoked in Section 16.7.3.2.</p>
<p>16.7.3.4. Colour Down Loading 16 Colours from a Set of 4096</p>	<p><u>Display</u> Each colour is defined by 1 of 16 levels of red, green and blue primary colours.</p> <p><u>Mode Controls</u> as Section 16.7.3.2. using the codes 6/1, 6/3 and 6/8.</p> <p><u>Colour Data</u> 16 groups of 12 bits define 1 of 16 levels for respectively red, green and blue primary colours. Bits b1, b2, b3, b4, b5 and b7 of the codes in figure 10 are used twice for each group. The sequence of 16 groups of 12 bits correspond to the colours invoked in Section 16.7.3.2.</p>
<p>17. Response of Decoder at Level 4 Alphageometric Coding</p>	<p>Page addresses in the range A1 to FF and associated page sub-codes are reserved for this function. To be implemented when the coding details are specified. (1)</p>
<p>18. Response of Decoder at Level 5 Alphaphotographic Coding</p>	<p>Page addresses in the range A1 to FF and associated page sub-codes are reserved for this function. To be implemented when the coding details are specified. (1)</p>
<p>19. <u>Telesoftware</u> Transmission of Computer Programs and Similar Data Not For Display. Applicable to a Range of Levels to be Associated with Those Defined for Text and Similar Display.</p>	<p>Page addresses in the range A1 to FF and associated page sub-codes are reserved for this function. To be implemented when details are specified. (1)</p>
<p><u>NOTE 1</u> These digits are in the hexadecimal range.</p>	

Packet X/O/O	Clock Run-in	Clock Run-in	Framing Code	Magazine Number, Tabulation & Packet Address	Page Number Units	Page Number Tens				Control Bits	Control Bits	
Packets X/T/1 - X/T/23	Clock Run-in	Clock Run-in	Framing Code	Magazine Number, Tabulation & Packet Address	32 Character Bytes Odd Parity							

1010101010101010	11100100	P M P M P M P M P M P M P M P M 2^0 2^1 2^0 2^0 2^1 2^2 2^3 2^4 Magazine Number Tabulation and Row Address	..... P = Protection Bits M = Data Bits
Clock Run-in	Framing Code		
Sync:ronisation		Hamming Code	

	Page Number	Page Sub-Code	Page Sub-Code & C4	Page Sub-Code &	Page Sub-Code & C5, C6	Control Bits C7-10	Control Bits C11-14
PMPMPMPM	PMPMPMPM	PMPMPMPM	PMPMPMPM	PMPMPMPM	PMPMPMPM	PMPMPMPM	PMMMMMMM:P
8 Hamming Codes							
24 Character Bytes Odd Parity							

FORMAT OF PACKETS X/0/26 X/0/27 X/0/28 4/1/30

Packets X/0/26 - X/0/28	Clock Run-in	Clock Run-in	Framing Code	Magazine Tabulation and Packet Address	Design- ation Code	First Three or Six Byte Data Group	
-------------------------------	-----------------	-----------------	-----------------	--	--------------------------	---------------------------------------	--

Packet X/0/26	PMPMPMPM Designation Code	PPAPAAP 12132345 P5 is add parity bit 1st byte	AAAMMMMP 56123454	DDDDDDDP Data odd parity	Ten Three Byte Groups in Each Packet A = Address m = Mode P = Hamming		
------------------	---------------------------------	--	----------------------	--------------------------------	---	--	--

Packet X/0/28	Oppppppp	sspppppp	PSPSPSPs	Ten Three Byte Data Groups in Each Packet 0 = Bit always set to 0 p = Primary Set Character P = Protection Bits s = Supplementary Set Character			
------------------	----------	----------	----------	--	--	--	--

Packet X/0/27	Six bytes containing Relative Magazine Number, Page Number and Page Sub-Code. For bit sequence see NOTE				Five Groups of Six Bytes Each in Each Packet When Tabulation bit is set to 1 and designation code to 0000 bytes 7 & 8 are a basic page check word		
------------------	---	--	--	--	--	--	--

Packet 4/1/30	Framing Code	Magazine Tabulation and Packet Address	Design- ation Code	Programme or Network Label	One 6 byte group Coded as packet X/0/27 Equipment Control Group Bytes 15 to 37		
------------------	-----------------	--	--------------------------	-------------------------------	--	--	--

NOTE Page Number and Page Sub-Code have the same format as bytes 6 to 11 of the Page Header (see figure 1), packet X/0/0. The bits C4, C5 and C6 in this sequence are used to change the magazine number from that in bytes 4 and 5 of the packet X/0/27. Setting any of these bits to 1 complements the corresponding magazine number bit. In all cases the LEAST SIGNIFICANT bit is transmitted first.

	2	3	4	5	6	7
0	SP	0	(1)	P	(1)	p
1	!	1	A	Q	a	q
2	"	2	B	R	b	r
3	#	3	C	S	c	s
4	\$	4	D	T	d	t
5	%	5	E	U	e	u
6	&	6	F	V	f	v
7	'	7	G	W	g	w
8	(	8	H	X	h	x
9	)	9	I	Y	i	y
10	*	:	J	Z	j	z
11	+	;	K	(1)	k	(1)
12	,	<	L	(1)	l	(1)
13	-	=	M	(1)	m	(1)
14	.	>	N	(1)	n	(1)
15	/	?	O	_	o	DEL

Figure 3

PRIMARY CHARACTER SET, COMMON CHARACTERS

(1) National Option variation, see Table on following page.

For 7 bit coding, bits 1-4 define row in ascending order and bits 5-7 define columns in ascending order.

TABLE POSITION	ENGLISH U.S. USE
4/0	e
5/11	[
5/12	\
5/13]
5/14	^
6/0	.
7/11	{
7/12	|
7/13	}
7/14	~

Figure 3 continued

PRIMARY CHARACTER SET, NATIONAL OPTION
FOR U.S. USE.

	2	3	6	7
0	oo oo oo	oo oo +o	oo oo o+	oo oo ++
1	+o oo oo	+o oo +o	+o oo o+	+o oo ++
2	o+ oo oo	o+ oo +o	o+ oo o+	o+ oo ++
3	++ oo oo	++ oo +o	++ oo o+	++ oo ++
4	oo +o oo	oo +o +o	oo +o o+	oo +o ++
5	+o +o oo	+o +o +o	+o +o o+	+o +o ++
6	o+ +o oo	o+ +o +o	o+ +o o+	o+ +o ++
7	++ +o oo	++ +o +o	++ +o o+	++ +o ++
8	oo +o oo	oo +o +o	oo +o o+	oo +o ++
9	+o +o oo	+o +o +o	+o +o o+	+o +o ++
10	o+ +o oo	o+ +o +o	o+ +o o+	o+ +o ++
11	++ +o oo	++ +o +o	++ +o o+	++ +o ++
12	oo ++ oo	oo ++ +o	oo ++ o+	oo ++ ++
13	+o ++ oo	+o ++ +o	+o ++ o+	+o ++ ++
14	o+ ++ oo	o+ ++ +o	o+ ++ o+	o+ ++ ++
15	++ ++ oo	++ ++ +o	++ ++ o+	++ ++ ++

Figure 4

MOSAIC GRAPHIC CHARACTER SET

o= Background Colour

+ = Foreground Colour

In the Mosaic Graphics Mode the Alphanumeric Characters from the Code Table of Figure 3 are included in Columns 4 & 5. Bit allocation is as figure 3.

	0	1
0	(4)	(4)
1	Alpha Red	Mosaic Red
2	Alpha Green	Mosaic Green
3	Alpha Yellow	Mosaic Yellow
4	Alpha Blue	Mosaic Blue
5	Alpha Magenta	Mosaic Magenta
6	Alpha Cyan	Mosaic Cyan
7	Alpha White ⁽¹⁾	Mosaic White
8	Flash	Conceal ⁽²⁾
9	Steady ⁽¹⁾ (2)	Contig ⁽¹⁾ Mosaic ⁽²⁾
10	End ⁽¹⁾ Box ⁽²⁾	Separ Mosaic
11	Start ⁽³⁾ Box	(5)
12	Norm ⁽¹⁾ Hght ⁽²⁾	Blk (1) Bkgd ⁽²⁾
13	Dble Hght	New Bkgd ⁽²⁾
14	(4)	Hold ⁽²⁾ Mosaic
15	(4)	Release ⁽¹⁾ Mosaic

TABLE POSITION	
0/	
0/	Reduced Intensity
1/0	Mosaic Black
1/9	Underline Stop & Contig Mo
1/10	Underline Start & Sep Mos

- (1) Presumed at the start of each row.
- (2) Action 'Set At', others are 'Set After'.
- (3) Two consecutive codes are transmitted, action takes place between them.
- (4) No action at level 1.
- (5) No action at level 1 or 2.

Figure 5
CONTROL CHARACTER SET FOR
SPACING ATTRIBUTES

	2	3	4	5	6	7
0		°		—	h	h
1	i	±	✓	1	Æ	æ
2	¢	²	✓	®	þ	ð
3	£	³	^	©	ª	
4	\$	X	~	™	†	‡
5	¥	u	—	♪		ℓ
6	#	π	∪	ℓ ^π	∩	ij
7	§	.	.		ℓ	ℓ
8	¤	÷	∴		ℓ	ℓ
9	'	'			ø	ø
10	“	”	°		œ	œ
11	<<	>>	∩		°	∩
12	←	¼		1/8	ℓ	ℓ
13	↑	½	“	3/8	ℓ	ℓ
14	→	¾	ℓ	5/8	ℓ	ℓ
15	↓	ℓ	✓	7/8	ℓ	

Figure 6

SUPPLEMENTARY CHARACTER SET

Column 4 contains accents to be associated with characters from the Primary Character Set of figure 3.

Bit allocations are as figure 3

- (1) This character represents the European Currency Unit and is proposed for inclusion at position 5/6.

The European Broadcasting Union has proposed that °/oo (per mil) be included. No position in the code table has been allocated.

MODE BITS	FOREGROUND COLOUR GROUP	BACKGROUND COLOUR GROUP
01000	A	A
01001	A	B
01010	B	B
01011	B	A

DATA BITS	COLOUR REFERENCE NUMBER
b7 b6 b5 b3 b2 b1	
0 0 0	1 A or B
0 0 1	2 A or B
0 1 0	3 A or B
0 1 1	4 A or B
1 0 0	5 A or B
1 0 1	6 A or B
1 1 0	7 A or B
1 1 1	8 A or B
16 colours in all	

The chromaticities of the colours are to be defined.
 Bits b7, b6, b5 define the background colour.
 Bits b3, b2, b1 define the foreground colour.
 Bit b4 invokes flashing

Figure 7
 INVOCATION OF PASTEL COLOURS IN FOREGROUND
 AND BACKGROUND

b5	b3 b2 b1	COLOUR REFERENCE NUMBER
0 = GROUP A	0 0 0	1 A or B
1 = GROUP B	0 0 1	2 A or B
	0 1 0	3 A or B
	0 1 1	4 A or B
	1 0 0	5 A or B
	1 0 1	6 A or B
	1 1 0	7 A or B
	1 1 1	8 A or B

The chromaticities of the colours are to be defined,
 but shall be the same as those of figure 7.
 Bit b4 invokes reduced intensity.

Figure 8
 INVOCATION OF PASTEL COLOURS FOR FULL SCREEN AND FULL ROW ATTRIBUTES

	6	7
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Figure 9 SMOOTHED MOSAIC GRAPHICS SET

Columns 2, 3, 4, & 5 are unallocated and the position 7/15 corresponds to the character DEL. The character in position 6/15 invokes the illumination of alternate dots of a mosaic rectangle. The horizontal component of the characters in positions 4/14 and 5/14 are invoked by the Separated Mosaic/Underline Alphanumeric Mode.

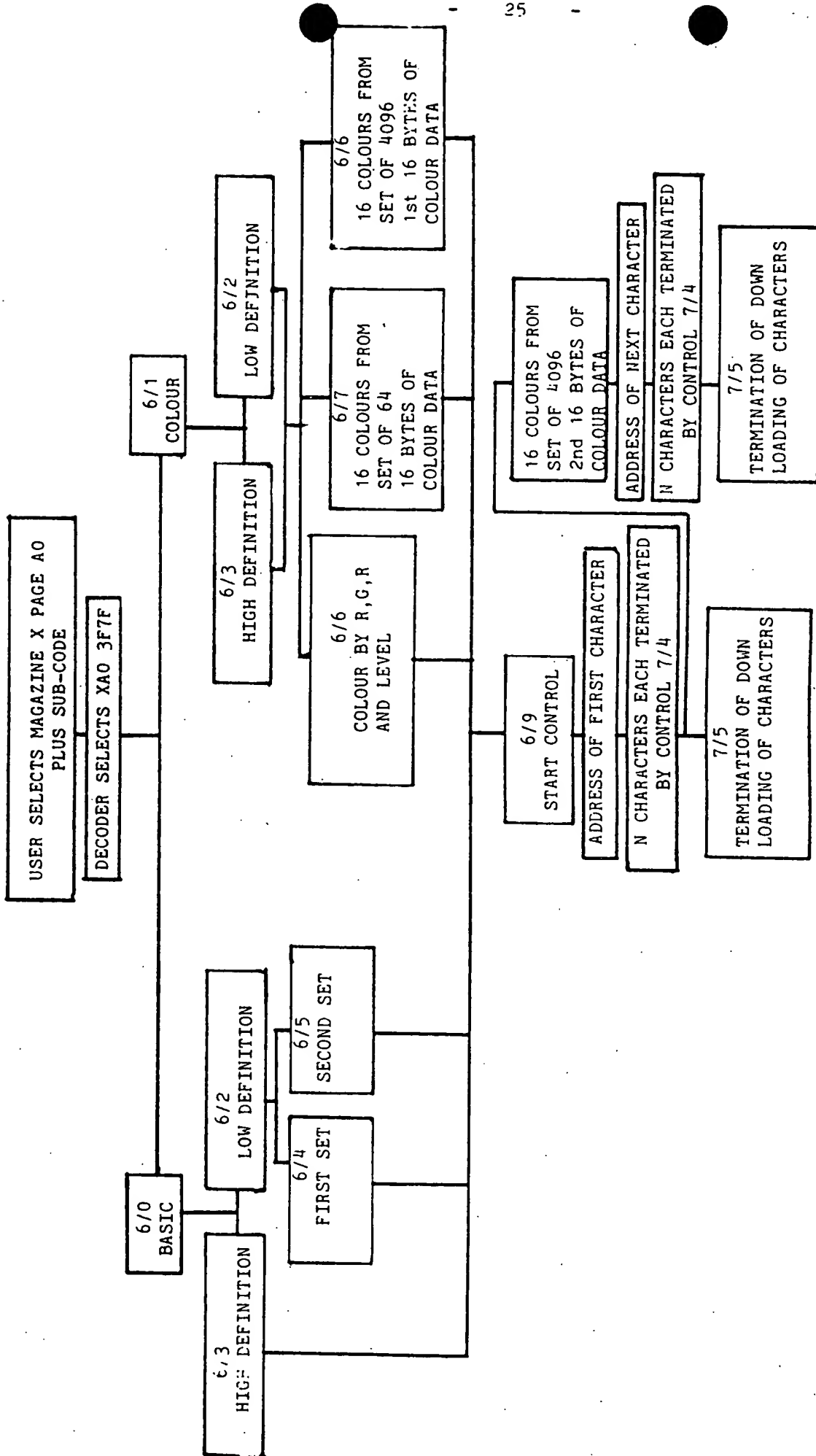


Figure 10
DOWN LOADING PROCEDURE FOR DRCS

	0 & 1	2-5	6	7
0	(1)	(2)	BASIC MODE	COLOUR DELIMITER 1
1	(1)	(2)	COLOUR MODE	COLOUR DELIMITER 2
2	(1)	(2)	LOW DEFINITION	COLOUR DELIMITER 3
3	(1)	(2)	HIGH DEFINITION	COLOUR DELIMITER 4
4	(1)	(2)	FIRST SET	TERMINATE CHARACTER
5	(1)	(2)	SECOND SET	TERMINATE DOWN LOADING
6	(1)	(2)	COLOUR BY R,G,B & Lev.	(3)
7	(1)	(2)	16 COLOURS FROM 64	(3)
8	(1)	(2)	16 COLOURS FROM 4096	(4)
9	(1)	(2)	START CONTROL	(4)
10	(1)	(2)	(3)	(4)
11	(1)	(2)	(3)	(4)
12	(1)	(2)	(3)	(4)
13	(1)	(2)	(3)	(4)
14	(1)	(2)	(3)	(4)
15	(1)	(2)	(3)	(4)

- (1) These columns reserved for standard control characters
- (2) These columns contain character and colour codes for down loading
- (3) These codes are reserved for future standardisation
- (4) These codes are reserved for use in the Videotex service

For 7 bit coding, bits 1-4 define rows in ascending order
and bits 5-7 define columns in ascending order.

Figure 11
CONTROL CODES FOR DRCS DOWN LOADING PROCEDURE

Broadcast Service Data Packet Byte	Function	Bit Allocation
15 Local Time Zone	Undefined. Polarity, set to 1 when behind UTC (eg USA). Magnitude of offset from UTC in units of $\frac{1}{2}$ hour. Undefined	Bit 1 Bit 2 Bits 3 - 7 Bit 8
16 Year Type and Day (1)	Set at 1 when this year or next year is leap year. Set at 1 when this year or last year is leap year. January 1st day of week. UTC day of week.	Bit 1 Bit 2 Bits 3 - 5 Bits 6 - 8
17 Week	Undefined. Week Number 1 to 53 according to ISO 2015.	Bits 1 and 2 Bits 3 - 8
18 Hours	Undefined. UTC Hours 10's. UTC Hours units.	Bits 1 and 2 Bits 3 and 4 Bits 5 - 8
19 Minutes	Undefined. UTC Minutes 10's. UTC Minutes units.	Bit 1 Bits 2 - 4 Bits 5 - 8
20 Seconds	Set to 1 during minute containing a leap second. UTC Seconds 10's. UTC Seconds units.	Bit 1 Bits 2 - 4 Bits 5 - 8

Figure 12 Time and Date Coding for Broadcast Data Packet

NOTE 1

Days of the week are numbered from Monday = 1 to Sunday = 7

A given packet time signal indicates the time at the occurrence of the next such packet.

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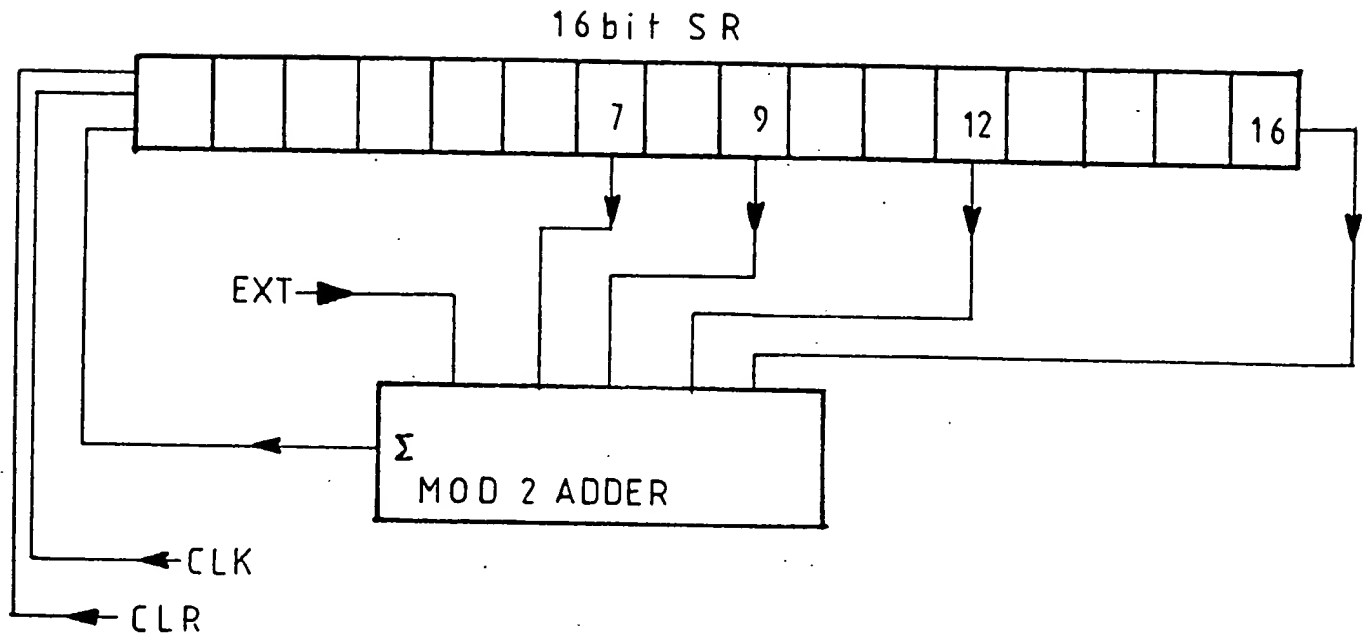


Figure 13

CHECK WORD GENERATION

In the example shown a 16 bit shift register has as input the modulo-2 sum of an external input and the contents of the 7th, 9th, 12th and 16th stages of the register. Initially the register is cleared to 'all zeros'. During a sequence of 8192 clock pulses the first 24 character bytes (192 bits) of the page header packet and the following character bytes of packets numbers with Y up to 25, in conventional transmission order form the external input. Any absent packets are considered to contain the character SPACE (2/0) throughout. At the end of this process the contents of the register are the Basic Page Check Word and it is transmitted along the register beginning with the bit held in the 16th stage.

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DESIGNATION CODE	FUNCTION	DATA BITS							
		1	2	3	5	6	7	4	
ROW GROUP 00000	FULL SCREEN COLOUR	No Response			Red	Green	Blue	Reduced Intensity	
ROW GROUP 00001	FULL SCREEN PASTEL COLOURS	16 Pastel Colours						Reduced Intensity	
ROW GROUP 00100	NO RESPONSE								
ROW GROUP 00101	NO RESPONSE								
ROW GROUP 01000	FULL ROW COLOUR	No Response			Red	Green	Blue	Reduced Intensity	
ROW GROUP 01001	FULL ROW PASTEL COLOURS	16 Pastel Colours						Reduced Intensity	
ROW GROUP 01100	NO RESPONSE								
ROW GROUP 01101	NO RESPONSE								
ROW GROUP 10000	NO RESPONSE								
ROW GROUP 10001	NO RESPONSE								
ROW GROUP 10100	NO RESPONSE								
ROW GROUP 10101	NO RESPONSE								
ROW GROUP 11000	NO RESPONSE								
ROW GROUP 11001	NO RESPONSE								
ROW GROUP 11100	NO RESPONSE								
ROW GROUP 11101	NO RESPONSE								
ROW GROUP 11111	PACKETS 26 TERMINATOR	This code is followed by a 2 byte check digit on the data in packets "26" and packets "28".							
ROW GROUP XXX1X	DRCS MAGAZINE ASSOCIATED	The value of bit 4 in the designation code only applies when in the DRCS Mode, except for group 11111 above.							

Figure 14 PACKETS "26" DESIGNATION CODES ALLOCATION
ROW ADDRESS GROUPS

DESIGNATION CODE	FUNCTION	DATA BITS 1 TO 7 INCLUSIVE
SPACE GROUP 00000	ALPHANUMERIC NORMAL	BITS 1, 2 & 3 respectively RED, GREEN & BLUE FOREGROUND BITS 5, 6 & 7 respectively RED, GREEN & BLUE BACKGROUND BIT 4 FLASHING
SPACE GROUP 00001	ALPHANUMERIC x 2 HEIGHT	
SPACE GROUP 00010	ALPHANUMERIC x 2 WIDTH	
SPACE GROUP 00011	ALPHANUMERIC x 2 SIZE	
SPACE GROUP 00100	1st DRCS LATCHING SHIFT	
SPACE GROUP 00101	2nd DRCS LATCHING SHIFT	
SPACE GROUP 00110	MOSAIC NORMAL	
SPACE GROUP 00111	MOSAIC SMOOTHED	BITS 1 to 7 inclusive with the 4 Designation Codes define 16 foreground and background colours
SPACE GROUP 01000 TO SPACE GROUP 01011	PASTEL COLOURS 4 CODES	
SPACE GROUP 01100	NON-SPACING ATTRIBUTES	
SPACE GROUP 01101	1st DRCS SINGLE SHIFT	BITS 1 TO 7 INCLUSIVE DEFINE THE DRCS CHARACTER
SPACE GROUP 01110	2nd DRCS SINGLE SHIFT	
SPACE GROUP 01111	SPECIAL CHARACTER FROM SUPPLEMENTARY SET	BITS 1 TO 7 INCLUSIVE DEFINE THE SUPPLEMENTARY SET CHARACTER
SPACE GROUP 10000 TO SPACE GROUP 11111	ACCENTS FROM SUPPLEMENTARY SET	BITS 1 TO 7 INCLUSIVE DEFINE THE ASSOCIATED PRIMARY SET CHARACTER

Figure 15 PACKETS "26" DESIGNATION CODES ALLOCATION

CHARACTER-SPACE ADDRESS GROUP

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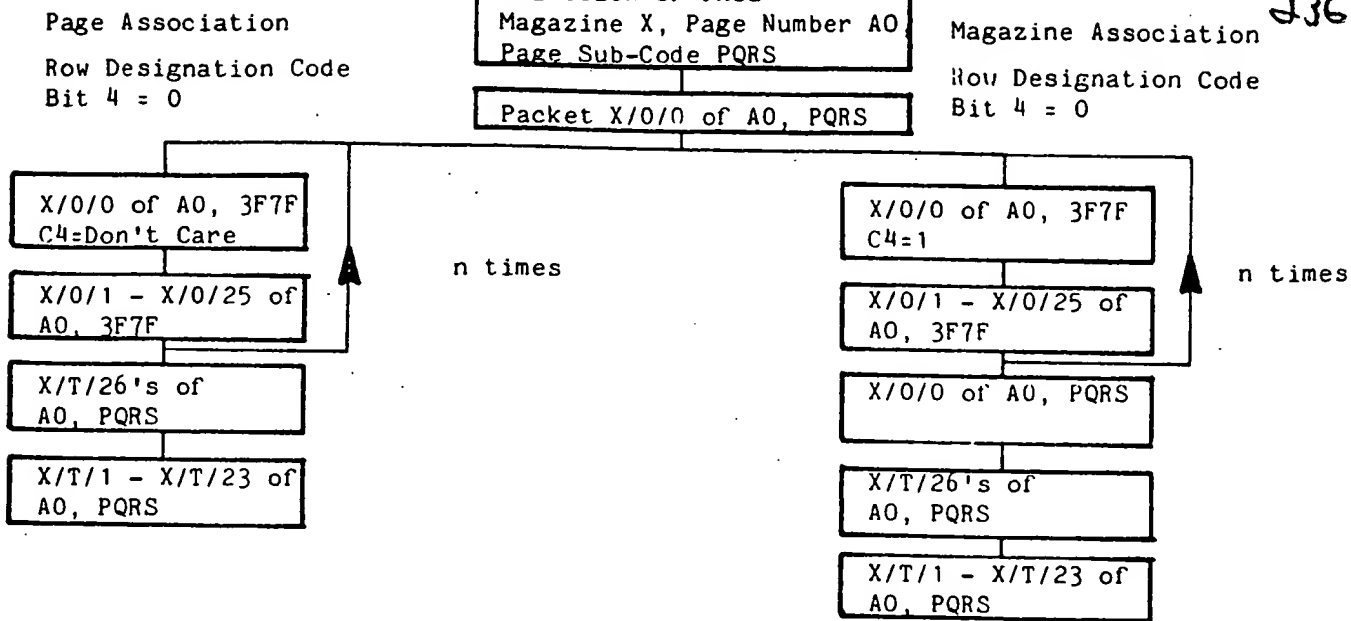


Figure 31 FULL PAGE DRCS DISPLAY PROCEDURE

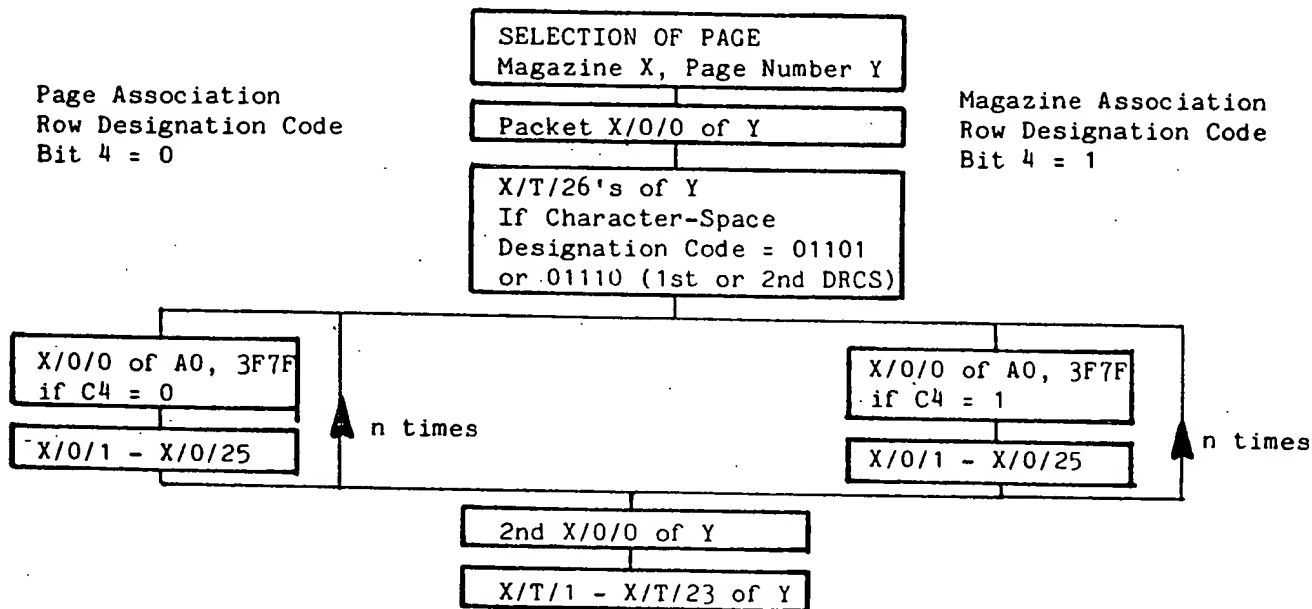


Figure 32 DRCS TO OVERWRITE BASIC PAGE

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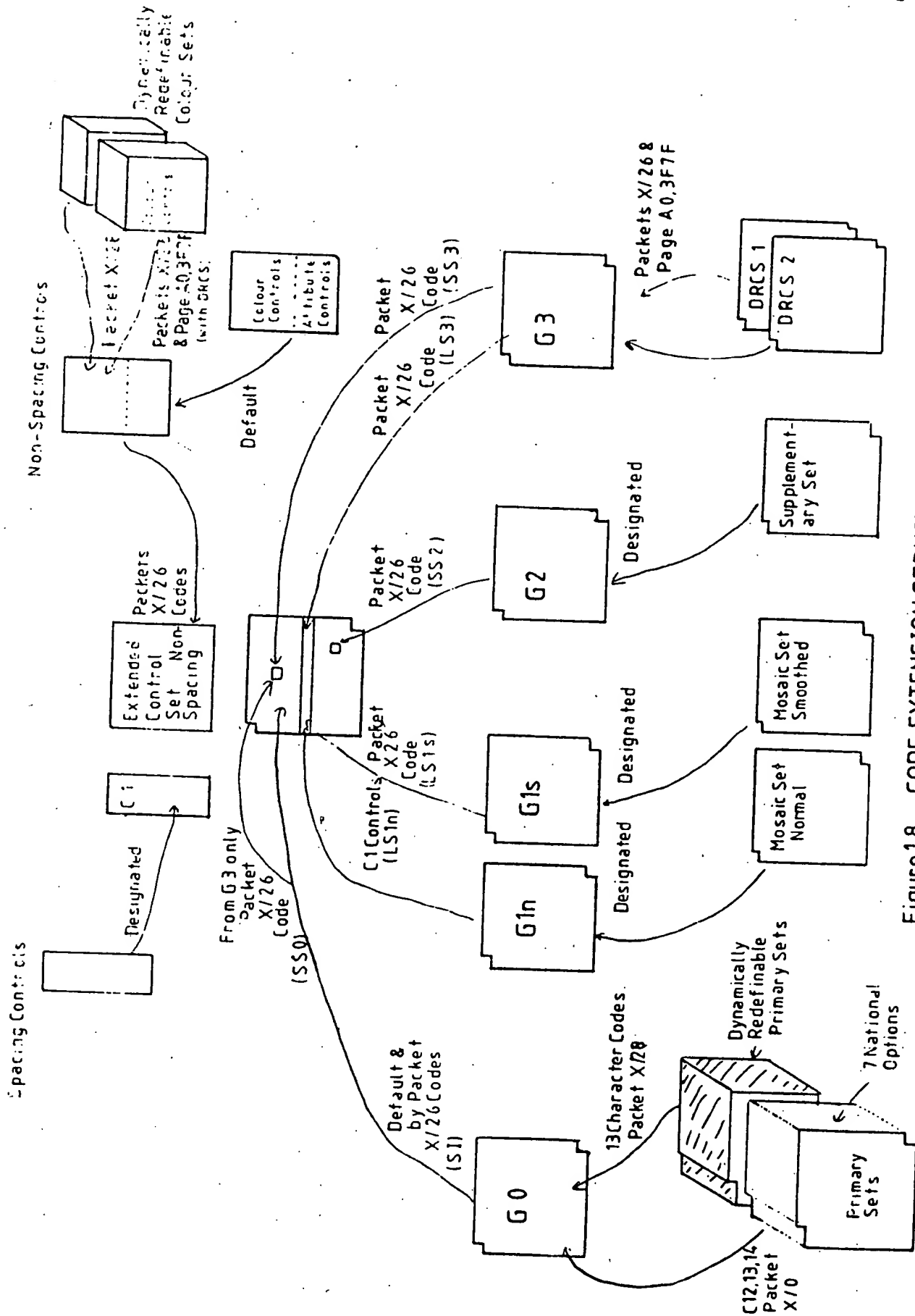


Figure 18 CODE EXTENSION STRUCTURE

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APPENDIX B- ["discrete signals" of "standardized" Teletext (exemplified)]

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The publication contained within "Appendix A" of this Office action, has been cited because it exemplifies "standardized" Teletext form/practice. The following is noted:

1) As was notoriously well known in the art, on the transmitter side of a Teletext system, a Teletext editor generated the respective Teletext images/frames which were to be transmitted. Each of these images/frames was then encoded into a "series of instructions" which "series of instructions", when transmitted and selectively received at the receiver side of the system, was used by the decoder/receiver to locally generate/re-generate the respective Teletext image/frame for display thereat.

2) As was notoriously well known in the art, in order to transmit the series of instructions, each series of instructions was first organized into a Teletext "page" format, wherein each formatted "page" was comprised of a plurality of "discrete Teletext packet signals". In the illustrated system of APPENDIX A, each Teletext "page" included the twenty-eight "discrete Teletext packet signals" having the structure shown on pages "A-17" and "A-18" of said Appendix A, wherein:

A) The first packet of each "page", e.g. packet "X/O/O" on page "A-17", was a header packet which carried various types of control signals associated with the respective "page";

B) The next twenty-four packets of each "page", e.g. packets "X/T/1" to "X/T/23" on page "A-17", were information packets each included various sync and address codes along with a 32 character byte information carrying portion for carrying a 32 byte "discrete portion" of the respective "series of instructions" of the respective Teletext image/frame; and

C) At least one of the remaining packets of each "page", e.g. packet 4/1/30, was an extension packet which, in the illustrated system, was used to convey:

⁷¹ Note "APPENDIX E" attached hereto

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1. Twenty-three bytes of an "equipment control group" for allowing the remote control/triggering/actuation of downstream network equipment(s);⁷²

[SEE: the paragraph which begins "Optional features..." on the page labeled "A-1" of the publication; and "Equipment Control" in packet 4/1/30 on page labeled "A-18" of the publication]

2. A program/network label portions for allowing downstream equipment/receivers to identify the program/network being transmitted on the given channel currently being received

[SEE: figure 12 on the page labeled "A-28" of the publication; and "Program or Network Label" in packet 4/1/30 on page labeled "A-18" of the publication]

3. ETC,...

3) As was notoriously well known in the art, so formatted Teletext "pages" were the communicated through the television network:

A) by embedding each "discrete Teletext packet signal" of each page within a respective vacant line period of the TV programming being distributed by the TV network;

B) by communicating the television programming containing the embedded "discrete Teletext packet signals" through the network to a plurality of receiver stations;

C) by separating the embedded "discrete Teletext packet signals" from the communicated programming at each of the receiver stations;

D) by determining which ones of the separated "discrete Teletext packet signals" correspond to information packets of a desired Teletext page;

⁷² While this document does not list the kind of downstream equipment which was to be controlled by this signal "group", the kind of equipment that could be controlled was in fact notoriously well known in the art [note "APPENDIX D" attached hereto].

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E) by decoding those information packets of the desired Teletext page so as to obtain/recover the respective 32 byte information portions therefrom;

F) by organizing the obtained 32 byte portion back into the original sequence of instructions;

G) by executing the organized sequence of instructions so as to "locally generate" the desired Teletext image for display at the receiver station.

More specifically, with respect to the exemplified system:

A) Each transmitted Teletext image was represented by a series of instructions up to 768 character bytes long;

B) Because each vacant line period of a TV signal did not have the capacity/bandwidth to carry all 768 character bytes at one time, each series of instructions had to be divided up into a plurality of discrete portions/segments which could be carried within a respective plurality of vacant line periods. Specifically, each of the 768 bytes of each series was divided up into 24 portions/segments/rows which were 32 character bytes long (i.e. $24 \times 32 = 768$), and each of these so produced 24 portions/segments/rows was then inserted into a vacant line of a TV signal via a respective one of the 24 information bearing packets "X/T/1" to "X/T/23" shown on page "A-17" of Appendix A;

C) On the receiver side of the system: said information bearing packets "X/T/1" to "X/T/23" of a desired/selected Teletext page were then identified and decoded by a Teletext decoder so as to recover the respective discrete 32 byte portions/segments therefrom; these obtained 32 byte portions/segments were then organized/re-organized back into the original 768 byte "series of instructions" and stored in a display memory; and finally, this stored series of instructions was outputted from the display memory in order to instruct a character generator to "locally generate" the desired Teletext image that was to be locally displayed;

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4) As was notoriously well known in the art, "series of instructions" representing non-displayable types of data/information, e.g. such as computer software (e.g. "Telesoftware"), were also be formatted into standardized Teletext "pages" and communicated through a TV network in a like manner; e.g. "extended Teletext"⁷³. As exemplified by the system of Appendix A, it was explicitly recognized that the information packets "X/T/1" to "X/T/23" of given pages could be used to carry 32 byte "portions"/segments software (e.g. "Telesoftware") in place of the 32 byte "portions"/segments of data which represented displayable Teletext images/frames [SEE: the paragraph which begins "Page addresses have also been reserved for the transmission of Telesoftware..." on page "A-1" of the publication; and section "19." on page "A-16" of the publication; etc,...]. And unless the Telesoftware program comprised less than the 30-40 bytes that could be carried within one vacant TV line, e.g. it being rather doubtful that any computer program would/could be so short, the Telesoftware program was necessarily broken up into a plurality of discrete 30-40 bytes portions to be carried within a respective plurality of the discrete information packets too (e.g. in the same way as the character/graphic instructions were broken up and carried by said information packets as addressed above)⁷⁴. Again, for applicant to suggest that Telesoftware/Teletext was not transmitted as a plurality of discrete signal portion/packets that had to be "organized"/re-organized back into a complete instruction sets on the receiver side of the system, is simply founded in an unrealistically low level of skill in the art. Such arguments represents nothing less than a huge misunderstanding and/or misrepresentation of Teletext "prior art".

⁷³ Note the discussion in the first 12 lines under the heading "ORACLE and TV Transmission System" which begins in the last 6 lines of the second column on page 561 of the Hedger publication entitled "TELESOFTWARE-VALUE ADDED TELETEXT"].

⁷⁴ Indeed, Telesoftware programs were often so long that they had to be divided up into discrete 30-40 byte portions filling not just one page but a plurality of "linked" Teletext pages [note the first 6 lines on page 562 of the Hedger publication entitled "TELESOFTWARE-VALUE ADDED TELETEXT"]

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**APPENDIX C- [The “cuing” technology of applicant 1981 parent VS the
“SPAM” technology of applicant’s instant “1987” CIP
disclosure]**

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THE 1981 CUING SYSTEM TECHNOLOGY:

Applicant's 1981 parent application first discussed "prior art" cuing technology in which *remote* devices were controlled by "cuing instructions" which were embedded within "header" and "trailer" portion of Radio or TV transmissions [note lines 58-68 of column 1 in US Patent #4,694,490]. In the context of applicant's 1981 disclosure, the terms "header" and "trailer" referred to those portions of a TV/Radio program transmission which immediately preceded and followed the TV or Radio programming itself. Because the prior art placed these "cuing instructions" in such "header" and "trailer" portions, e.g. portions separate from the programming itself, it was easy for such "cuing instructions" to have become lost during program switching and editing processes (note lines 1 and 2 of column 2 in US Patent #4,694,490). Applicant's 1981 "invention(s)" overcame this problem by inserting the "cuing instructions" into the program transmission itself wherein the "cuing instructions" could not become easily separated from the programming [note lines 5-30 of column 4 in US Patent #4,694,490]. As has been noted by the examiner throughout the present prosecution, the record is simply overflowing with pre-1981 "prior art" which shows that it was known, conventional, and desirable to transmit such "cuing-type instructions" as digital codes within the programming whereby, as noted by applicant, they could not become easily separated from said programming:

- A) The translation of the 1968 Japanese article "System and Apparatus For Automatic Monitoring Control Of Broadcast Circuits" by Yamane et al.;
- B) The 1964 UK Patent Document #959,274 to Germany;
- C) The 1971 article "The Vertical Interval: A General-Purpose Transmission Path" by Anderson;
- D) The 1970 article "Vertical Interval Signal Applications" by Etkins;
- E) The 1973 article "A System of Data Transmission in the Field Blanking Period of the Television Signal" by Hutt;
- F) The 1973 article "Ad Hoc Committee on Television Broadcast Ancillary Signals" by O'Conner; and
- G) The Australian Patent Document #74.619 to Hetrich ,

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being among the more notable of this previously cited pre-1981 prior art.

As to the way in which applicant's 1981 inventions transported the "cuing instructions" within the programming, the 1981 disclosure set forth the following:

- 1) That the cuing instructions were digitally encoded so as to form respective "signal units";
- 2) That the bits from each of these "signal units" was carried within one or more "signal words" wherein the term "signal word" was explicitly defined only to be: a discrete appearance of a "signal" (with respect to time or location) within a TV or Radio program; and
- 3) That each of the "signal words" themselves was comprised of a string of bits which may or may not have included bits for identifying the beginning and end of the respective "signal words".

Significantly, the following "features" seem to have been common characteristics of applicant's 1981 inventions:

- 1) each of the transmitted "signal units" only appears to have comprised digitally encoded "information" which identified characteristics of the programming into which it had been placed/inserted, or an "instruction" or for identifying/"cuing" specific action or actions to be taken one or more "pre-programmed" receiver side devices; and
- 2) each of said receiver side devices was pre-programmed so as to known in advance where and when desired coded information would be broadcasted.

These "features" also appear to have been common characteristics to much of the pre-1981 prior art cited above; e.g. such as the cited 1973 publication by Hutt entitled "A System of Data Transmission in the Field Blanking Period of the Television Signal".

APPLICANT'S 1987 "SPAM" SYSTEM TECHNOLOGY:

While the "signal word" terminology and its 1981 definition have been *cosmetically* carried forward into disclosure of the 1987 CIP, it is believed that the introduction of the "SPAM" technology via the 1987 CIP disclosure represents a real and significant departure from the "signal word" transmission structure that was originally contemplated within the 1981 disclosure. Specifically, while the 1981 disclosure

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appears to have fallen short from locking itself into a specific packetized transport structure, the 1981 disclosure clearly contemplated providing a packetized structure at the "signal word" level in that the 1981 disclosure indicated that the "signal words" themselves would have included bits for identifying respective "signal word" beginnings and ends (i.e. thereby defining "signal word" sized packets). In contrast, the 1987 "SPAM" technology formally introduced a packetized transport structure which included its own bits for identifying the beginning and end of respective "SPAM" message packets. However, these "SPAM" message packets clearly did not correspond to the packetized "signal words" contemplated by the 1981 disclosure. Rather, these SPAM message packets provide a transport mechanism which allowed "signal word"-like intervals to be used as a "digital pipe/channel" by which a continuous stream of SPAM message packets could be passed. No such pipe/channel and no such "SPAM" transport mechanism/stream was ever described or contemplated via the disclosure of applicant's 1981 parent; e.g. at best, only a packetized "signal word" structure seems to have been contemplated by the 1981 disclosure. This fact further evidences why the currently pending claims which are necessarily directed to the "SPAM" technology of applicant's 1987 CIP disclosure are not entitled to the 1981 priority date of applicant's parent application which had no such "SPAM" disclosures.

APPLICANT'S 1981 AND 1987 TECHNOLOGIES (COMPARED):

The pre-1974 cuing technology of the "prior art" listed above lacked a "universal"/standardized packetized transport structure which could be used to carry its many type of digitally coded discrete signals (note APPENDIX D of this Office action). The pre-1981 "extended Teletext" technology provided this previously missing universal/standardized packetized transport packet structure (note APPENDIX B of this Office action).

In a similar way, the cuing technology of applicant's 1981 parent disclosure also lacked a "universal" packetized transport structure which could be used to carry its many type of digitally coded discrete signals. Applicant's 1987 "SPAM" technology provided such a previously missing universal packetized transport structure. And because the currently pending amended claims include recitations which are necessarily directed to this 1987 "SPAM" packetized transport (i.e. those recitation which necessarily derive their required section 112 support therefrom), the currently pending amended claims are clearly not entitled to the 1981 priority date of the parent application which did not disclose such a "SPAM" transport mechanism.

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It is important to note that the pre-1981 "universal"/standardized transport packet structure of "extended Teletext" systems not only predates the introduction of applicant's own 1987 universal "SPAM" transport packet structure, but it actually predates the cuing code technology of applicant's 1981 parent application too (i.e. 1981 cuing code technology which appears to be more closely related to the cuing technology set forth in pre-1974 "prior art" listed above). Being such, such the "discrete packet signal structure" and content that is "extended Teletext" constitutes "prior art" against any and all inventions that applicant has or can ever claim within the current chain of applications; e.g. no matter how one cuts the issue of priority under section 120!

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APPENDIX D- [Prior to 1981, it was notoriously well known in the art to have inserted/embedded digitally encoded "instruction", "control", "information", and "messaging" signals into the vacant lines intervals of distributed TV programming in order to have controlled the execution of a wide variety of functions performed by a wide variety of downstream machines and "equipment". The following lists, obtained from the pre-1981 "prior art" cited in APPENDIX C above, exemplify some of the functions which were known to have been controlled by such embedded cuing/data signals.]

D

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O'CONNOR (1973)

ATTACHMENT II

List of Ancillary Signal Functions

(In Addition to Test and Reference)

1. Network signalling for news breaks and special announcements.
2. Cueing to automatically start and stop equipment.
3. Continuous program log printout.
4. Unique identification of programs and/or commercials.
5. Program sound channel.
6. Emergency sound channel or second sound channel for non-English speaking minorities.
7. Subtitles for the deaf or for non-English speaking minorities.
8. Automatic operation of cable television non-duplication switchers.
9. Emergency action notification alerting.
10. Automatic operation of pre-set videotape recorders in schools.
11. Data transmission — closed circuit or for broadcast.
12. Facsimile transmission — closed circuit or for broadcast.
13. Precise time and frequency dissemination.

From SMPTE Reply Comments Doc 19314, Page 2, May 8, 1972

FCC "Final Report" by Spangberg (1975)

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The television distribution industry is continually looking for improved methods to upgrade and control the program materials, the video and aural signals, and further to distribute these signals at a lower cost. The distribution industry can be expected to use the added signalling capacity of the channels for the following functions as ways to improve their normal program broadcast operation:⁹

1. Network signalling for news breaks and special announcements.
2. Continuous program log printouts.
3. Unique identification of programs and/or commercials.
4. Program sound channels.
5. Automatic operation of cable television nonduplicating switchers.
6. Precise time and frequency dissemination.
7. Test and reference signals.
8. Network or channel identification for automatic receiver tuning.
9. Signals for control of automatic channel equalizers.
10. Program categories.
11. Quality rating of original signal.
12. Destination of transmission control.
13. Source synchronization.
14. Telemetry to and from remote transmitters.
15. Program coordination.
16. Network time signal.
17. Transmission of instructions and other information to subsidiary studios.
18. Selective user addressing.
19. Regional news and/or weather service distribution.
20. Listing of forthcoming programs, i.e., program guide.

Etkin (1970)

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Vertical Interval Applications

As the vertical data transmission systems will probably provide extra use of the broadcast spectrum without interfering with the existing services, it is logical that the use of some applications will require waivers or changes in the FCC Rules and Regulations.

The versatility of the present industry applications will be presented. Many applications include Broadcast, ETV and CATV uses.

1. Communications link to affiliated network stations. By employing an electronic generator at the point of network origin and at each affiliate, it is possible to establish a reliable continuous communications network. The affiliate should use a separate control room monitor upon which network messages would be seen. The network provided with a selective addressing unit could address an individual station, group of stations, or all stations, transmitting program log information, cueing information, routine messages or news flashes. News alarms could usually use the flashing feature of generator as a silent signal to alert control room personnel.

2. Transfer of daily program logs. Daily program logs made up at the controlling station could be transmitted to the affiliates by using the vertical interval system. The log information could be fed to a rotating magnetic memory device or a hard copy printer.

3. News wire distribution. News wire bandwidth requirements are determined so that several hundred circuits could be carried in the vertical interval of a single video signal.

It was recently shown that a AP News Wire could be carried over an RF system. The news wire was terminated at a city located on a news wire trunk line so that it could be turned over to private or common carrier TV microwave operators. Assuming that appropriate FCC waivers are obtained, interconnected TV stations and CATV systems subscribing to the service could be fed directly and radio stations could receive the signals from off-air pickups from TV stations. Readout would be displayed either by hardcopy from a printer or by means of an electronic character generator. It is most likely that CATV systems would also provide a continuous news feed to CATV subscribers.

TV stations and CATV systems employing character generators and magnetic storage equipments could possibly preview and edit the news copy, and then display the edited copy on a monitor from which the newscaster can obtain the latter-day "rip and read" copy and then deliver the news orally.

4. Communications with TV station mobile units. The TV station's transmitter could be used to transmit messages to mobile units. To achieve this each mobile unit would have to be equipped with a character generator for readout. The mobile units message transmission to the control room is performed similarly, by using the remote video link. Where the mobile microwave unit transmits to the station's transmitter site, the two-way data circuit can be maintained by using the common transmission facilities through a different horizontal line for each direction. The transmitter video input switcher operated by studio control is normally accomplished so as to provide for better coordination during remote pickups.

5. Transmission of messages by ETV and ITFS systems. Many statewide, regional and local educational distribution systems can be provided with advantage of the addressing flexibility of the vertical interval data transmission devices. They can selectively communicate with individual schools or groups of schools. The readout device can be character generator or hard copy.

6. Central computer facility. Various campuses having points of origin in an ETV system can establish

two-way communications with a central computer facility.

7. Identification of program source. Vertical interval encoded signals can be used to identify the origination point of network programming or the source of video tape production.

8. Unattended VTR's remote controlled. Remotely located video tape recorders can be operated by the application of V. I. control for recording programming during otherwise dark periods. CATV systems being fed from regional microwave systems could record feature films and other program material at night, or other available time periods, using the same microwave facilities that are used for daytime carriage of regular programs. The use of this method could solve two of the most vexing problems in cable TV program distribution, dubbing and bicycling.

9. Remote video switching. Video input switching of intercity

microwave systems can be remotely controlled by means of V. I. signals. TV stations and ETV systems can be controlled from either the point of origination or from the destination point.

10. CATV non-duplication switchers remotely controlled. Local and distant TV broadcast stations can remote, manual, or automatic control the non-duplication switchers. This provides for schedule changes of the programming hours. Other vertical interval application possibilities are: Insertion of test signals; Microwave fault alarm transmission; Remote control of metering and logging of TV transmitters; Regional news and weather service.

HUT (SLICE) 1973

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Programme source identification

The first application of the data system at the IBA is for labelling programme sources within the IBA programme network. The data signal is inserted along with insertion test signals (ITS) on the adjacent lines 19, 20, 332, 333, and the data signal when read out and displayed on an indicator denotes the sources of ITS and also programme. The system is currently demonstrating a solution to live programme identification and providing an extended test of the data system under operational conditions. No severe problems have yet been encountered. Some further possible uses of insertion data are:

- ① Source identification
- ② Programme category
- ③ Destination of transmission
- ④ Quality rating of original signal
- ⑤ Switching and routing instructions
- ⑥ Source synchronization or genlock
- ⑦ Monitoring and service data
- ⑧ Telemetry to remote transmitters
- ⑨ Programme co-ordination
- ⑩ Frame numbering
- ⑪ Network time signals
- ⑫ Transmission of captions to special domestic receivers
- ⑬ Transmission of instructions and information to subsidiary studios, transmitters, displayed on monitors or print-outs
- ⑭ Communication with OS units
- ⑮ Message transmission for ETV distribution, selective user addressing
- ⑯ Verification of carriage of commercial material, using line 16 monitoring
- ⑰ Remote control of unattended ETVs
- ⑱ Regional news and/or weather service distribution
- ⑲ Domestic information service as with the proposed
- ⑳ Oracle service (see para 6.11)

Anderson (1971)

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Abstract—Equipment is now available to utilize the vertical interval of the television signal to transmit digital information. A vertical interval (VI) encoder selects any line, 13 through 20, onto which is clocked the data originating from a character generator, computer or other digital device. At the receiving point, data are decoded for display in "real time" using a character generator, printed out in hard copy, or used to initiate electromechanical operations through proper interfaces.

Numerous applications exist for VI transmission: transmitting information to network affiliates, newswire distribution, remote computer access, centralized clock system control, remote control of VTR's and video switchers, and test signal transmission.

INTRODUCTION

HISTORICALLY the vertical blanking interval has been utilized by television networks and common carriers to transmit video test signals. Equipment is now available that further permits the addition of digital information from character generators, computers, and other sources onto the vertical interval.

CONCLUSION

We feel this system has real potential as a means of disseminating information by a network to affiliated stations. By having such equipment at the point of origin and at each affiliate, it is easily possible to establish a reliable, continuous communications network at minimal expense. Typically, the affiliate would be equipped with a separate control room monitor upon which network messages would appear. The network, by means of selective addressing, would address an individual station, group of stations or all stations, transmitting program log information, cueing information, routine messages or news flashes.

FCC "Final Report" by Sponsberg (1975)

Ancillary signals possibly could be used to facilitate the activities of a number of professions outside the television industry. Functions that could be performed are:

1. Starting and stopping of equipment automatically.
2. Automatic operation of preset video recorders in schools.
3. Providing precise time and frequency information.
4. Automatic vehicle location signals.
5. Stock market information.
6. "Newspaperlike" services (or facsimile).

The activities which may be of interest are:

- Educators who have the desire to record a television documentary being shown over the networks during the time period after school hours.
- Scientists and operating systems requiring extremely precise time and frequency information.
- Business operations needing immediate marketing or stock market information.

Application/Control Number: 08/470,571

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APPENDIX E- [Each Teletext image is transmitted through a TV network as an encoded "series of instructions" which, when selected for reproduction, can instruct a Teletext decoder as to how to "locally generate" the desired image]

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Teletext utilizes a number of the lines in the vertical blanking interval for the transmission of text and pictorial information in digital form for display on the television screen. The number of vertical blanking interval lines which may be used for teletext ranges from a minimum of one to a maximum of 12, with two lines proposed for use initially in the United States. The amount of digital teletext information which can be transmitted in a given amount of time increases in direct proportion to an increase in the number of lines used for teletext.

The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a series of instructions to be transmitted to the teletext decoder. The instructions for each page in the teletext "library" are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g., by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmissions, stores the coded information in memory, processes that information to the extent necessary for a display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture.

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:)
)
Amendment of Part 73, Subpart E) RM No.
of the Federal Communications)
Commission Rules Governing Tele-)
vision Broadcast Stations to)
Authorize the Transmission of)
Teletext)

PETITION FOR RULEMAKING

The United Kingdom Teletext Industry Group, Bernard J. Rogers, Chairman, 1/ pursuant to Section 1.401 of the Commission's Rules, files herewith, this request, that the Commission initiate a proceeding proposing the adoption of rules to allow television broadcast licensees to transmit teletext using the defined format British teletext system. 2/

We submit that teletext is ripe for rapid development in the United States and we urge the Commission to proceed as quickly as is reasonably possible to allow the use of this important technology in the United States. For this reason

1/ This group is comprised of representatives of the following bodies who are interested in the British teletext system and have endorsed the present submission: British Broadcasting Corporation; Independent Television Companies Association; Independent Broadcasting Authority; British Telecoms; Department of Industry; Logica, Ltd; Jasmin, Ltd; Mullard, Ltd; V.G. Electronics, Ltd; Texas Instruments (UK), Ltd; General Instrument Microelectronics (UK), Ltd; Aston, Ltd; GEC (UK) Ltd.

2/ The specific rules which we proposed for adoption are set forth at Attachment B to our Appendix.



KC012283

toward the commencement of teletext service in the United States as soon as is reasonably possible.

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Respectfully submitted,

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March 26, 1981

Its Attorneys

KC012303

Art Unit: 2614

APPENDIX F- [Receiver produced Teletext images (i.e. displayed *Teletext* derived subtitles) were understood by those of ordinary skill in the art as having been “locally generated” images].

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(APR 1981)GB 2062401
MAY 1981

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25 Apr 1980

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None(58) Field of search
H4F
H4T(71) Applicants
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House, Torrington Place,
London WC1E 7HD(54) Picture display device for
displaying a mixed picture signal

(57) In a picture display device for displaying a mixed picture signal which signal comprises a conventionally received television picture signal and a locally generated signal, such as a teletext sub-title, a field deflection amplifier (1) is provided to which is connected an output stage comprising transistors (2, 3). To the junction of the emitters of these transistors a field deflection coil (4) is connected whose other terminal is connected through a capacitor (5) and feedback resistor (6) to earth, the junction of capacitor (5) and resistor (6) being connected through a feedback network (14) to a negative feedback terminal (1b) of amplifier (1). The junction of deflection coil (4) and capacitor (5) is connected through the collector-

emitter path of a transistor (7), a resistor (8) and the collector-emitter path of a transistor (9) to earth, the transistors (7, 9) being of like conductivity type. The bases of transistors (7, 9) both receive drive signals from a teletext decoder circuit (10), that for transistor (9) being at picture frequency so that it conducts during alternate field periods whilst that for transistor (7) is at field frequency and causes that transistor to conduct in the presence of the local picture and box blanking signal from the decoder (10). When both transistors (7, 9) are conducting the field deflection current through field deflection coil (4) is modified such that the interlace in the picture is substantially eliminated in the presence of the locally generated signal. In this manner jitter in the display at the boundary between the portions of the picture is substantially reduced.

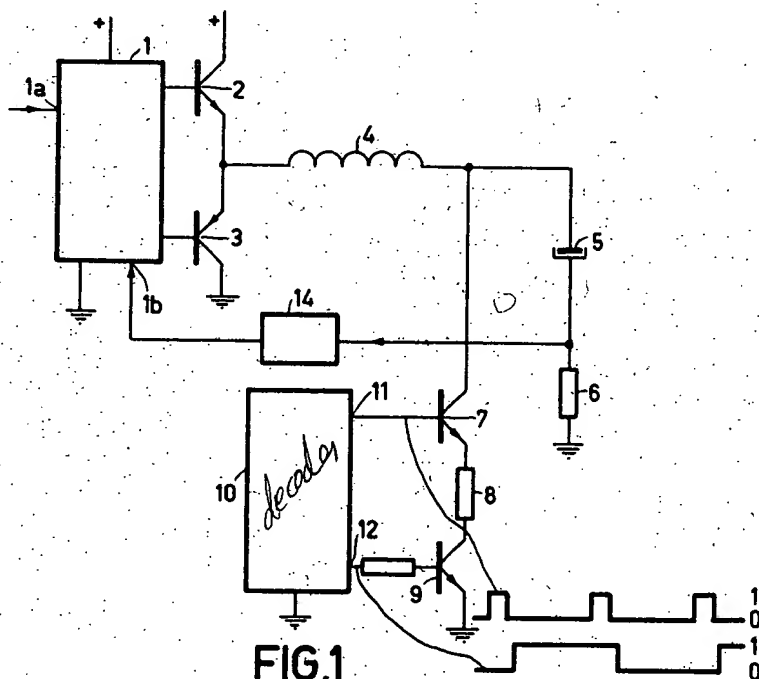


FIG.1

GB 2 062 401